PATHOLOGY OF HIGHER EDUCATION

Some Challenges Before University Faculty

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Professor Anand P. Srivastava

United Nations and Unesco Expert, 1968-74

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FOREWORD

DR. PREM KRIPAL
Ex-President
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I am glad to write this foreword to a significant contribution to thinking about higher education which has not attracted so far many creative minds in India. On the eve of a nation-wide discussion on the Draft National Policy on Education the appearance of Professor Anand P. Srivastava's book on *Pathology of Higher Education* is timely and opportune. Containing as it does a wide range of reflections on current problems of University education, especially the challenges posed to University Faculties, Professor Srivastava's analysis and suggestions, based on rich experience and meticulous objectivity, should be of value to policy-makers as well as the general public interested in educational change. It will specially interest the vast number of teachers, students and parents who feel greatly perturbed by the growing sickness of the Universities and the waning of the quality of leadership and scholarship in the Centres of learning and academic life of the nation. Professor Srivastava highlights several defects in a balanced and constructive spirit, leaving the impression that all is not yet lost, and the prevailing ills can be cured by a new vision and determined effort.

From his vantage point of the organiser and disburser of knowledge from the library and the world of books, Professor Srivastava views the rot that has set in with concern as well as hope. The key to the quality of university education lies in the competence and motivation of the teaching faculty and the zest and faith of the learners. These can be roused and developed by wise leadership at all levels. This is not beyond our resources, both material and moral.

From my own younger days of learning and teaching at a university to the present time of turmoil and confusion, I have witnessed a gradual decline of standards in the academic life of the country. The failure is man-made as it is in the larger socio-economic life of our people. Three developments appear to be necessary to turn the tide and move towards better time.

Firstly, we need greater emphasis on the knowledge and practice of human values that determine the quality of relationships in the world of learning. This decline must be arrested if our academicians have to take charge of their noble mission.

Secondly, we need to nurture and value creativity in the universities as in other spheres of national life. The drift towards mediocrity and decadence should not be allowed to undermine the credibility and usefulness of the Centres of learning.

Lastly, I believe we are getting more self-centred, inward-looking and obsessed with our own image of the past. It is now time to find a vision of the future from a true understanding of our present-day identity and aspirations.

Can the Universities give a new lead in the projection of human values, the nurturing of creativity and man's transcendence to a higher level of consciousness?

New Delhi.

INTRODUCTION

PROFESSOR SATISH CHANDRA
Chairman, University Grants Commission
NEW DELHI

There are many specialised characteristics of higher education. Ever since the Industrial Revolution we have seen that the higher education has worked both as 'Nursery' and the 'Laboratory' for development in a society. The other peculiar phenomenon of higher education is that despite considerable introspection and academic analysis, mostly by the university and college faculty, there is a crisis in the field of education, with the wide spread feeling that the higher educational system has lived up to the some what extravagant demands placed upon it by society. The author of this book, *Pathology of Higher Education: Some Challenges Before University Faculty*, has attempted in his study some of the specific problems facing higher education. Higher education needs to constantly undergo introspection, analysis and evaluation. The consequent evolution and growth of higher education calls for a continual review of the *'teaching—learning'* processes. *How to educate in better ways and through better means* will thus continue to be a problem tackled afresh by educationists.

Like any other movement, people engaged in higher education have continually to define their goals and methods through analysis and synthesis. These have to cover not only the specialised field of one's study, but also general issues i.e. general problems facing the movement. Study and research on curricula, teaching methods, comprehension and evaluation, etc., need to be conducted in each teaching department of each college and in each University.

In this book, the author has made an effort to focus the attention of the university faculty on some *general aspects* of higher education, some issues involved with the *faculty-component*

and the *student-component* of higher education. The other sector covered in the book, deals with *some seminal issues in higher education*. The last sector deals with efforts needed for *nursing the roots and the fruits of higher education*. The book also contains a study of the *Draft National Policy on Education* of Government of India. The *Policy Frame* concerning development of higher education, adopted by the University Grants Commission, has been included as the Appendix in this book.

The book deserves a study and examination by University and College faculty. In order to sustain the interest, the author has provided fairly comprehensive bibliography on different special and general themes. I hope this book will lead to a deeper study of problems of higher education in the country, with the active involvement of teachers and educationists.

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INTRODUCTION—Prof. Satish Chandra, Chairman
University Grants Commission, New Delhi.

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CHAPTER 1

The Balance Sheet of Higher Education

A score and half years, even a hundred years, provide too short a perspective for proper and authentic assessment of success and failure in any social activity. Nor are verdicts possible in a field developing as rapidly as higher education is. Yet, a backward glance over travelled roads by universities should be considered desirable. The second difficulty is that the terms *failure* and *success* are relative, not absolute. These terms, like beauty, reside in the beholding eye making assessment highly personal and idiosyncratic. Then, there is the hurdle of the fact that success can be found even in a failure; and that for the counting of success the characteristic of striving appears more relevant than the phenomenon of actual results achieved. Therefore, it appears difficult to say that certain features are unmitigated failures and that certain trends are unqualified successes. In fact, what we can do in evaluating the thorny thicket of higher education in India is to critically examine a selection of concepts and activities during the last thirty years.

The first point in this essay of evaluation should obviously deal with the general body of academicians having the responsibility

of administering, planning and conducting teaching in our universities. In trying to understand their attitudes toward innovation and the degree of confidence of success in their efforts, it does become apparent that like most of the Sophists, who rejected philosophy and the search for truth because they believed that ultimate truth was unattainable, Indian scholars possessed strong bidden doubts that despite our rich seminars, useful conferences and comprehensive commission or committee reports, not much was going to be faithfully and properly implemented. Hence, the chances of reforming our higher education, like acbieving ultimate truth, remained largely dim. The growth of and emphasis on specialisation fragmented the span of abilities and understanding of our professors. There has been no solid understanding of the necessary relationships in the totality of scholarship and higher education. The second set of victims of intense specialisation by faculty has been the common issues like better teaching methods and adoption of newer techniques of comprehension by students. These weaknesses could best be described as the absence of proper synthesis in the arena of higher education.

The other major general failure has been on the front of the performance of academic associations and societies. Learned societies originated in the 16th century in England and by the end of tbe 19tb century they enveloped the wbole world. India too has national associations and societies on almost each subject. But the achievement by these societies, as compared to their counterparts in other countries, had been less than satisfactory. These societies met periodically to elect new office bearers. This task completed their major roles. Academics bave by and large tended to be "Scminar and Conference happy people". The claims of continuing education througb conferences are creditable but the failure lies in our inability to conduct objective analysis of what else our Seminars and Conferences are accomplishing.

The other category of failures falls under the atmosphere of disjunctions which exist between State authorities and University power; between substantive planning and actual budgetary provisions made; between the structure of a teaching department and its functioning; between expectations from and actual performance by teachers including their inter-relations; and between the theory of direct democracy in the university and its actual practice by councils and unions. Learning in our higher institutions was on a single track, purely one dimensional, based on units of time with small and also traditional courses. The courses did not interest students. The University remained aloof from contemporary social issues and students had no role in making educational policy. Faculty remained interested in following its own academic career and was not highly concerned with the education of the students. Teaching was of low quality and suited the convenience of teachers. Whatever a teacher may have aimed at , he generally succeeded in getting everyone in a class partially, if not fully, asleep. Most of the lectures were boring because in style and content they covered areas also covered in the books prescribed. The concept of tutorials got sunk in the land of the Ganges River because teachers did not take the required pains. Not much option in selecting courses resulted in low motivation. As numerous subjects were to be studied at a time, students were unable to do justice to any one subject. The greatest enemy was the examination system. It required the ability to remember and to reproduce rather than the capability of thinking.

All concerned, with no exception, decried our examination system but no university had the courage to do away with it. Students' interests and abilities failed to get attention. Higher education, in brief, divorced learning from life and placed the student in passive roles. It forced a student to study materials irrelevant to his own individual interests. It had absolutely no place for students whose academic preparations were poor. The highest percentage of students failed and thus were discouraged for their

whole life. University authorities got influenced and controlled by politicians and bureaucrats. University admissions were sought largely for ensuring a better economic and social status. But the majority of students remained unemployed after completing their courses. During the last 30 years political conditions disturbed the nation including our universities. We did nothing to educate the powers and would-be powers in the country. We are a vast country but our training so far had been for managing smaller affairs. Now bigger units of organisation have emerged all around but our methods remain the old ones, suitable only for managing smaller units. This phenomenon created problems in the way of efficiency. The enlarged Academic Councils and University Courts are examples which prove the phenomenon. Left to themselves the universities developed lethargy, a kind of prejudiced conservation and thereby an attitude of intolerance toward innovation. Subject-specialists, but not general scholars, found a place on the University Grants Commission. The result is that the Central Government does not bestow on them that honour which was once the prerogative of earlier members of the Commission. Many members lost their effectivity because they stood in a queue to call on bureaucrats in educational administration. We had no scholars who could walk freely in the corridors of power, including the Prime Minister(s) earning the prerogative of reverential regard.

Today our Public Sector Organisations are more independent than Indian Universities are. Complete autonomy requires complete independence. As financial autonomy is not there, the piper plays the tune of the bureaucrats. The bureaucrats ultimately took up the custody of the custodians of Indian universities. Universities have in reality become the arms of ruling bureaucrats both in central and state universities. Unless the method of block grant for five years, or so, is revived the universities will continue to become more and more dependent on Secretaries and other officers in governments. The possible bulwark in the shape of private universities, which may have shown newer ways,

remained non-existent in our country. The importance of having a sufficient number of laymen (from top positions in society) on our syndicates and executive councils appears to be a good solution to our problems of administration of higher education. Continued absence of a dynamic and objective (not only union activities) body, like Association of University Professors, has already created a big gap in our higher education. While our primary schools failed in teaching—reading and language properly, and high schools failed in developing comprehension and writing, the universities lost their way completely by not cultivating the skills of analysis and synthesis in our students. Socratic ways of probing, questioning and regrouping of ideas and concepts, still the sovereign paths of learning, were not practised by our teachers.

Our university educated failed to provide intellectual, political, economic and artistic leadership to the nation during decades of active life after graduation. A university has three lives to care about—past, present and future. Our universities failed in identifying at least those brains which will keep the nation alive in the future. Qualitatively our higher education did not improve much as compared to the colonial days; on the contrary standards did suffer in certain ways.

Educational escalators brought millions to universities and these students used universities as a support to stand in society, like a drunkard uses a lamp post, and not for illumination. Higher education implies relations between concepts of man and the society throughout one's life. It is a process of knowing and continuing to know. To know is not to remember something previously known and now forgotten. It is constant problematizing of existential situations, and the University products should be able to raise structures in imagination and then be able to put them to work in reality. They should be able to produce some by-products in their areas of work. They should modify the environment.

In brief, a university graduate should be capable of having a useful biography. But on the contrary, through our education system, one third of life goes in learning poorly without working and two thirds of life goes in working poorly without learning. There is no doubt that higher education in the country is currently being governed by the law of diminishing returns.

The failure of the modern Indian university is intimately linked with the failure of social science in India. The University was first an affair of isolation in jungles, a Gurukula or Nalanda, etc., in a village, and then in the days of British rule it became a town; in the post independence era it became a small city. Now, through the bigger units in Calcutta, Bombay and Delhi, etc., it has become aa unmanageable empire, requiring a Gibbon to write on it.

The successes of higher education come to mind less readily than the failures, because higher education is a highly ambitious and sophisticated eatity. It remains the principal avenue through which a developing country can attain all-round progress. As problems grow more complicated in a society, higher education becomes more important, not less, as a resource for solution of difficulties.

In 1947 we had only 20 universities and the year 1977 saw 111 Indian universities in operation. Higher education after Independence has progressed enormously for, in 30 years, 91 new universities have been established. The rate of growth of so many universities in such a short time should be a world record in itself. No other country in the world has added on an average three universities each year, for a period of 30 years. This growth, counted as a success, is more in terms of quantity than of quality. But it is for the first time that middle and lower classes came to campus life. For qualitative improvement and regulation of growth the nation witnessed during the 50s the emergence

of the University Grants Commission for coordinating the efforts of various universities and for improving their standards. The character of the Indian University Grants Commission is more or less like that of the colonial masters in England. The structure of the Commission, its functioning and areas of operations resemble a great deal with those of the University Grants Committee in Britain. But in actual operation the Indian University Grants Commission has not been able to maintain either the quality or the sophistication that one sees in the operation and achievement of the British University Grants Committee. Yet the strivings and endeavours of the University Grants Commission in India are certainly laudable in such a short period. The difficulties faced by the University Grants Commission in India have been much more complex than those of its counterpart in Britain.

The second major success, only in a narrow sense, that may offer itself for consideration is the development of some Central Universities in India. The Central Universities have contributed a great deal towards the attainment of academic and research standards and they have also helped in the progress of non-Central Universities both old and new, but not without learning a great deal from them in return.

Other major achievements of our higher education have been the improvement in the potentiality to attract better minds to teaching and research through upgrading of salaries of university teachers; through provision of a greater number of senior teaching posts in most universities and through the provision of much better service conditions for teachers including the facility of study leave and availability of fellowships. Indian higher education stands in high repute for its ability to escape censorship even during the Emergency. Threats of censorship practically never did enter the university horizons. Censorship had its way in the universities of numerous developing countries and to some extent its milder threats were discernible even in the universities of

some developed countries. It is in this context in particular that Indian scholarship deserves congratulations.

The next major success of Indian Higher Education is that during the last 15 years it was able to survive campus violence, strikes by students, teachers and karamcharis and many Vice-Chancellors performed in such noble ways that they need to be honoured with valuable awards like the 'VIR CHAKRA'.

Another major success appears to be through the efforts of agile sections of university faculty for developing the consciousness of inter-disciplinary studies and also for providing them in some ways in many universities. Indian scholarship has been quite alert, and to a great extent successful, in the promotion of research, at least of some kind, in teaching departments and for obtaining a fairly large number of scholarships for students. In such a short time it is not expected that either all or most of the university research should be close to and/or higher than of average standards, particularly during the early years of the initiation of this activity. Yet, the research journals of the world published have about 6 to 10 per cent of their total contents from Indian sources.

Another remarkable success achieved by Indian scholarship has been in the development of comparatively better university libraries, which certainly are still poor in comparison with international standards. Indian scholarship has yet to unfold and derive numerous advantages which are available in the kit of modern *information and library scientists. The stage* must soon arrive wherein from one single place in the country, more than one is neither possible nor desirable as per experiments in other countries, any scholar in the country can seek for up-to-date bibliographical lists, current awareness services based on the profiles of researchers and academicians, photocopies on subsidised rates, and on loan graphic materials to various corners of the country.

The University Grants Commission initiated thinking on vital areas like curriculum reforms, better teaching methods, faculty development, and modern methods of examinations. But, so far the issues have got only superficial treatment International research findings in these areas were not gathered for relating them to our local conditions in the process of finding comprehensive and feasible solutions. Busy and professional panelists, as against real students of these issues, were made to analyse each issue separately, while all the four issues required related synthetic analysis for exploring the practicability of reforms. Serious scholarship on university problems has yet to emerge as a full-time interest for study and research. It is only specialists in individual disciplines who advised the Commission on these related areas, obviously through isolated, individualised and superficial approaches and solutions. However, whatever has been produced by the UGC could be integrated and expanded in the near future.

While Indian scholarship has been the victim of more than normal mutual jealousy and hatred, the rise of the lotus was seen in the growing trends of group diseussions between teachers and scholars. The last three decades have witnessed better and greater writings and publications by Indian scholars. The establishment of Centres of Advanced Studies in certain selected departments of Indian universities was no doubt taken as a cheating game by smart ones but it will be unjust to deny their glowing contributions in the development of respective areas of scholarship in the country. Indian universities and scholars have certainly seen the emergence and development of better hostel and sports facilities, which were much too scarce previously. The Indian scholar has reacted very well in his contacts with scholars of other countries and in the process it has been his privilege to get honour and respect from distinguished academicians of other countries.

In brief, the Indian scholarship has shown over years a greater and growing virtue of a better sense of priorities in its plans of development and in their implementation. But there still appears a tremendous scope for future years so that our better sense of priorities reaches the stage close to the best sense of priorities within the limited resources available. To conclude, unless much is achieved in respect of igniting the community of students for better learning processes, all these successes will only mean success of the means but failure of the ends.

Prognostications about higher education can never be safe on the part of a single person. Hence , the best way is to leave the affairs of the future as desirables. By the year 2000 A.D. Indian Higher Education should endeavour to innovate its contents and direction rather in the following ways. It should devise newer learning situations comprising learning through real activities. The dull and passive notes-taking of lectures should disappear. There should be some courses which will not be job oriented. Unless the income oriented approach is partially supplemented by learning *qua* learning, universities will not regain their real character of scholarship. We must be able to provide numerous course choices for our students. Maybe our universities are able to replace fail or pass certification role by issuing just attendance certificates. Also, there may be no minimum entrance requirements. People should come to the universities in their thirties, forties and fifties for specially tailored courses. Tuition income shall obtain greater percentage in university funds. The community of students should develop pressures on faculty performance and roles. Student unions should be involved in these reforms though they may not be exactly appointing and dismissing teachers. One (or more) nationally renowned teacher in each course need be lecturing to the entire nation through television network. Our libraries should have computers and all libraries in a town be under one co-operative control;

and supporting services should be greatly increased in our universities. The numbers of students and faculties should fall. It is also hoped that tenure of Vice-Chancellors will be peaceful and the tenet that 'a Vice-Chancellor can do no wrong' will be greatly in vogue, eliminating strikes and violence on the campus.

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CHAPTER 2

The University Scene

Sir Eric Ashby wrote in 1973 that we are at a moment in history when the balance of forces in systems of higher education all over the world is upset by social changes. In the case of India, Ashby's observation appears very true. Numerous elements of change have gripped and moulded higher education in India after 1948. The first major element of change was in the high rate of continuously spiralling number of recipients of higher education. New universities (Table-1) and newer colleges are operating with largely newly recruited inexperienced teachers; and without proper book and other resources. The other factor is the well accepted rapid growth of new knowledge in each discipline—ranging from Economics to Physics and other disciplines, demanding frequent and substantial expansion and revision of courses. This kind of accelerated growth in knowledge tests both the ability and adaptability of university teachers. Some succeed, but most Indian teachers fail in updating themselves in the absence of proper information services.

The next element to note is that of the increased ability of modern students. They want modifications in the courses

offered The conventional views are challenged hy the new generation of students, who want courses that will increase thcir skills, so that thcy can move their way in the organisational world. The dcmand for relevance is another point. Learning for thc sake of learning is no more a valid principle. Due to greater information possessed, wider interests developed, hetter preparation and increased sophistication in the newer generation, some educationists feel that today's students get borcd in classes right from the age of fifteen. Their anger and rcsentment take the shape of strikes, etc.

The next element of importance is connected with the joh market and unemployment. The entire labour of education goes in vain for persons in their twenties who fail to get jobs. They find that the education system of the country is out of tune with hard facts. Another element is the change in values and attitudes in the country as a whole. Political misbehaviour hy leaders and corruption and inefficiency by exeeutives make our youngsters pity and hate their elders. The generation gap also plays its role.

Another feature of value is that society has witnessed the transformation of the teacher, who no more possesses his traditional characteristics and attrihutes. A teacher today is a professional careerist. But the worst phenomenon is due to the absence of a proper medium of communication between students, teachers and learning materials. It is due to the change of medium from English to ill-equipped regional languages, unable to sustain higher learning through the existing quality and quantity of literature in various subjects. It is not possible to have English even as a library language, what the Education Commission prescribed in the sixties. Higher education, once controlled by the elite, conducted by the elite for the children of the elite, is now in all respects replaced by education of the masses with their urge for jobs and who do not care at all about elite culture.

In the development of higher education there are three significant models. The first one is the English or Oxford model of the

17th century covering the education of a ruling class with emphasis on moral and intellectual values. The second model originated in Scotland, in the 19th century, opening higher education to the general public with emphasis on practical and utilitarian subjects like accounting and government work—different from the model of elite education. The third model originated from Germany, after the Humboldtian revolution, covering institutionalisation of research. It emphasised training in scientific method aimed at the expansion of knowledge. All these three models are simultaneously in vogue in the universities of the world. While about 150 years ago all professors had the same sort of education, the faculty today possesses diversified educational qualifications for different subjects in higher education. A teacher's work is divided today between teaching of undergraduates and postgraduates and the conduct of research.

The two roles of teaching and research have placed teachers in a conflicting dilemma. Those who conduct research and publish are considered true scholars and those who primarily teach are mere teachers. The criterion of a successful professor is qualitative research, and this is the first model. The second model in the community is, *the excellent teacher*, who is generally not honoured as much as a research professor. This anomaly happens because good teaching cannot be convincingly measured by authorities, and it is a subject of doubt by colleagues, while good research, once acclaimed by the community of researchers, is bound to be taken for granted. At times research is done at the cost of proper teaching, which means the loss of the student as client. It is almost the same position wherein the practising medical doctor, ignoring examination and treatment of patients, devotes his major time in preparing medical reviews and abstracts.

Models of university students are many. The first model contains the gifted learners. They are bound to sprout even on a dung-hill. The techniques of teaching and methods of evaluation do not disturb them while better ways can always make

them obtain better results. It is this number of about 10% to 15% students, who are the contribution of Indo-Aryan and Dravidian genius and genes, who excel in the world of scholarship and manage the affairs of the country. It is again this group, which is often referred to by educationists and professors, who wrongly claim it as their contribution to the pride of India. Obviously, this group is an exception and not an average product of our education. The systems and techniques of higher education should not brag about it as their success for they were bound to distinguish themselves irrespective of the process they would have gone through.

The success of a system lies in the quality of average products and in the system of education, on its ability to improve weaker stuff. There are colleges where admissions close at 70% marks. No wonder such students perform better than those in colleges where admissions go down to 40% marks. The real test of the quality of education is if it can improve the mediocre to the level of the good category and the weak to the rank of the mediocre. But on the contrary our higher education ends in a downward trend, where a good student becomes mediocre; a mediocre one becomes a weak student; and a weak student either drops out or fails. These downward and upward trends depend entirely on what we do in our universities and how we conduct our teaching.

The other important type of students in our universities are the uneducable. A great disappointment can be prevented in our society, university and the professoriate, if they are not required to impart culture and learning to this uninterested category of students. Selectivity in admissions must be rigidly enforced in our universities to exclude uneducables.

The change in clientele has brought in its fold changes in objectives, functions and in other details. How the world operates cannot be taught to students because the teachers themselves do not know about it properly. There is a gaping misfit between what the students want from colleges and what higher education

actually provides. In many cases there is no consciousness on the part of parents and students as to what they want from higher education. It is only a tradition to go to campuses in the belief that it may benefit a person in life.

Non-degree holders get brain-washed by our education system and condemn themselves for life forming ultimately the culture of silence, because during their youth they could not get higher degrees. In fact, alongwith missing some curriculum information, what they largely missed was college years filled with much drudgery. Yet the trap of higher education is there because it plays gatekeeper to employment opportunities and welfare media. The university degree has also closed off earlier escape routes like a career in business where need for degrees and specialisation has now become more rigid after the successful experiments of the Harvard Business School. So, any person wishing for a career must pay tribute to higher education irrespective of its dividends and liabilities.

But higher education for inflated numbers, more than society requires, has placed graduates in jobs where only matriculates are needed and the worst happens when they remain unemployed. Even the phenomenon of marriage finds degrees a necessity. With the salary of professors touching Rs. 2,500/- per month in the Indian economy, it should certainly be higher education's most pleasant moment in India. Having placed university teachers in better grades, the country naturally expects good returns in the coming decade. Will this happen?

The present state of educational reforms in our country is not satisfactory. About thirty years have passed and we have only been able to achieve a little. The semester system has been adopted only by sixty five universities. While a university may have the semester system for master's studies, the same university is also seen conducting only one examination in a year for undergraduate students. Internal assessment covering 0% to 50% marks is in vogue in seventy four universities. Twenty five

universities have developed question banks and forty four universities have adopted the grading system, in place of numerical marks, ranging between the four point grade to the eleven point grade. The above statistics should not assure the reader that our universities have introduced these elements of change systematically by adequately preparing the teachers, students and others. On the other hand, the changes introduced are merely in name, brought about through isolated efforts and hasty thinking.

In 1978, the University Grants Commission announced in consultation with the Prime Minister that higher degrees will not be necessary for many jobs and that universities will allow examinations in all courses by private candidates. These two steps, if really taken, are likely to cure many chronic pathological symptoms of higher education. Higher education has always been under a cloud. Troubles, problems and even failures, etc., are nothing new to it. The society at large retains its doubts about higher education, and intellectuals, though generally respected are not able to eliminate the society's mistrust altogether. Professors are taken as nincompoops with the reputation of not being able to cope with the real world. Also, in our country higher status jobs are not to the tune of the number of yearly products of our universities. People appear disgusted with higher education's dedication to the *status quo*. Very narrow specialisation by professors has more of disadvantages than advantages stemming out from it. From the students' angle, getting a degree dominates over getting broad education, which may also not be possible from narrow specialists.

Speculating on the future of higher education, Alexander Mood, in a Carnegie Commission study, radically suggested that the higher education should abandon its certification function, which has almost lost its importance. Some of his other suggestions were that students be given a full veto in employing and promoting faculty members; a Video University be established and entrance qualifications should be eliminated. Let audio-visual mass communication centres teach, and teachers, like

privately practising medical doctors, may well start the private practice of coaching and tutorials to supplement audio-visual teaching. Over-security of employment and salary increase have generated chronic inertia in teachers, which can be shaken by the challenges of private practice and by threats from the consumers, the students. Can we hope for such drastic remedies in our higher education by the year 2000 A.D.?

Indian Universities established up to 1975-76

Table—1

Year of Estoblishment	*S. No.*	*University*	*Total Enrolment*
1857	(01)	Calcutta University	2,33,936
	(02)	Bombay University	73,871
	(03)	Madras University	1,06,584
1887	(04)	Allahabad University	21,753
1916	(05)	Banaras Hindu University (Varanasi)	14,588
	(06)	Mysore University	50,506
1917	(07)	Patna University	9,184
1918	(08)	Osmania University (Hyderabad)	62,142
1921	(09)	Aligarh Muslim University	9,596
	(10)	Lucknow University	29,093
1922	(11)	Delhi University	78,506
1923	(12)	Nagpur University	60,227
1926	(13)	Andhra University (Waltair)	62,982
1927	(14)	Agra University	40,720
1929	(15)	Annamalai University (Annamalai-nagar)	5,746
1937	(16)	Kerala University (Trivandrum)	50,709
1943	(17)	Utkal University (Bhubaneswar)	24,204
1946	(18)	Saugar University	21,033
1947	(19)	Rajasthan University (Jaipur)	76,360
	(20)	Panjab University (Chandigarh)	46,006
1948	(21)	Gauhati University	29,140
	(22)	Kashmir University (Srinagar)	12,470

1	2	3	4
1949	(23)	Roorkee University	1,983
	(24)	Poona University	63,004
	(25)	M.S. University of Baroda	17,736
	(26)	Karnatak University (Dharwar)	41,479
1950	(27)	Gujarat University (Ahmedabad)	82,609
1951	(28)	S.N.D.T. Women's University (Bombay)	13,657
	(29)	Visva Bharati (Santiniketan)	1,578
1952	(30)	Bihar University (Muzaffarpur)	16,793
1954	(31)	Sri Venkateswara University (Tirupati)	27,320
1955	(32)	Sardar Patel University (Vallabh Vidyanagar)	9,844
	(33)	Jadavpur University (Calcutta)	4,793
1956	(34)	Kurukshetra University	57,029
	(35)	Indira Kala Sangit Vishwavidyalaya (Khairagarh)	324
1957	(36)	Vikram University (Ujjain)	19,904
	(37)	Gorakhpur University	58,708
	(38)	Jabalpur University	17,393
1958	(39)	Sampurnanand Sanskrit Vishwavidyalaya (Varanasi)	2,707
	(40)	Marathwada University (Aurangabad)	45,793
1960	(41)	G.B. Pant University of Agriculture & Technology (Nainital)	2,178
	(42)	Burdwan University	58,627
	(43)	Kalyani University	1,893
	(44)	Bhagalpur University	10,610
	(45)	Ranchi University	24,388
1961	(46)	K.S. Darbhanga Sanskrit Vishwavidyalaya	2,050
1962	(47)	Punjab Agricultural University (Ludhiana)	2,568
	(48)	Punjabi University (Patiala)	22,655
	(49)	Orissa University of Agriculture & Technology (Bhubaneswar)	959

1	2	3	4
1963	(50)	North Bengal University (Siliguri)	21,323
	(51)	Rabindra Bharati (Calcutta)	2,974
	(52)	Magadh University (Gaya)	22,506
	(53)	Jodhpur University	10,441
	(54)	Udaipur University	8,163
	(55)	Shivaji University (Kolhapur)	47,049
1964	(56)	Indore University	16,833
	(57)	Jiwaji University (Gwalior)	21,085
	(58)	Ravi Shankar University (Raipur)	25,630
	(59)	University of Agricultural Sciences (Bangalore)	2,735
	(60)	Andhra Pradesh Agricultural University (Hyderabad)	2,300
	(61)	Bangalore University	46,301
	(62)	Jawaharlal Nehru Krishi Vishwavidyalaya (Jabalpur)	2,181
1965	(63)	Dibrugarh University	11,631
	(64)	Kanpur University	50,608
	(65)	Meerut University	50,781
	(66)	Madurai University	48,250
	(67)	Saurashtra University (Rajkot)	40,105
	(68)	South Gujarat University (Surat)	19,945
1967	(69)	Berhampur University	5,893
	(70)	Sambalpur University	13,292
1968	(71)	Gujarat Ayurveda University (Jamnagar)	2,192
	(72)	Jawaharlal Nehru University (New Delhi)	2,039
	(73)	Mahatma Phule Krishi Vidyapeeth (Rahuri, Distt Ahmednagar)	1,826
	(74)	Calicut University	27,243
	(75)	Awadesh Pratap Singh University (Rewa)	15,388
	(76)	Assam Agricultural University (Jorhat)	751
1969	(77)	Guru Nanak Dev University (Amritsar)	34,486

1	2	3	4
	(78)	Jammu University	8,268
	(79)	Panjabrao Krishi Vidyapith (Akola)	2,248
1970	(80)	Haryana Agricultural University (Hissar)	1,536
	(81)	Himachal Pradesh University (Simla)	11,949
	(82)	Bhopal University	16,481
	(83)	Rajendra Agricultural University (Dholi, Distt., Muzaffzarpur)	1,124
1971	(84)	Tamil Nadu Agricultural University (Coimbatore)	2,154
	(85)	Cochin University	283
1972	(86)	Kerala Agricultural University (Trichur)	619
	(87)	Gujarat Agricultural University (Ahmedabad)	1,818
	(88)	Konkan Krishi Vidyapith (Dapoli)	542
	(89)	Marathwada Krishi Vidyapith (Parbani)	1,160
	(90)	Lalith Narayan Mithila University (Darbhanga)	12,270
	(91)	Jawaharlal Nehru Technological University (Hyderabad)	3,305
1973	(92)	North Eastern Hill University (Shillong)	4,756
	(93)	Kumaon University (Nainital)	5,748
	(94)	Garhwal University (Srinagar-Garhwal)	9,946
1974	(95)	Kashi Vidyapeeth (Varanasi)	2,002
	(96)	Bidhan Chandra Krishi Viswavidyalaya (Kalyani)	1,097
	(97)	University of Hyderabad	47
	(98)	Narendra Deo University of Agriculture & Technology (Faizabad)	—
	(99)	Chandra Sekhar Azad University of Agriculture & Technology (Kanpur)	718
1975	(100)	Avadh University (Faizabad)	17,197
	(101)	Bundelkhand University (Jhansi)	9,708
	(102)	Rohilkhand University (Bareilly)	23,137

Other Institutions of Higher Learning

Year of recognition	*S. No.*	*Institution deemed to be University*	*Totol Enrolment*
1958	(1)	Indian Institute of Science (Bangalore)	1,006
	(2)	Indian Agricultural Research Institute (New Delhi)	514
1962	(3)	Gurukul Kangri Vishwavidyalaya (Hardwar)	312
	(4)	Jamia Milia Islamia (New Delhi)	1,023
1963	(5)	Gujarat Vidyapeeth (Ahmedabad)	447
1964	(6)	Tata Institute of Social Sciences (Bombay)	198
	(7)	Birla Institute of Technology & Science (Pilani)	2,055
1967	(8)	Indian School of Mines (Dhanbad)	509
1973	(9)	Central Institute of English & Foreign Languages (Hyderabad)	97
		Grand Total of Students in 1975-76	*24,26,109*

Note: The UGC report for the year 1977-78. shows that number of universities were 105, other institutions 10, and student enrolment 25,64,972.

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CHAPTER 3

Peers and the University Grants Commission

Indian Universities have developed complete traditional uniformity. New ideas, plans and organisational reforms are neither comprehensively formulated nor properly executed. Hence, they fail to penetrate the *status quo.* The requirement of study of international research and its adaptiveness could not develop in the attitudes of our academicians. These are the phenomena which can be termed as 'Clerical restrictions' to academic innovation and growth. This lapse keeps our higher education in intellectual somnolence where, like the Oxford situation once upon a time, the junior scholars drink and hunt and senior scholars drink and sleep.

Before describing and evaluating various efforts of the University Grants Commission of our country in the field of higher education, it needs to be stated that the successes of the University Grants Commission are in fact the successes of Indian scholarship, because in various panels and committees, it is the Indian scholars who work and decide UGC plans. Similarly, the failures of the University Grants Commission

are again the failures of Indian professors, because if they fail in formulating comprehensively the projects of the University Grants Commission then the projects are bound to achieve less, if not fail altogether. The University Grants Commission does not have its own full-time experts. The visiting expertise invariably comes out of the faculties of Indian Universities. Hence, the evaluation of UGC projects really means the evaluation of Indian scholarship, and not of a few officers of the University Grants Commission.

The University Grants Commission is an agency working between the University world on one side and the Government on the other. It interprets university needs and affairs to the government, and governmental attitudes to universities. In this process it takes grants and dishurses them and also tries to maintain academic standards. It needs to he trusted hy hoth parties. Sophistication in its operations requires that neither of these two parties should feel that the UGC is much too favourahly inclined to the other—working either solely as a governmental agency ignoring the cause of universities, or working as nn uncontrolled champion of universities, undermining the governmental approach and limitations.

In fact, in its mission of honest brokerage between the two, the UGC never really becomes popular with either. No agency, in fact, can. Sir John F. Wolfenden, the Principal Librarian of British Museum, while working as Chairman of the British University Grants Committee from 1963 to 1968, formulated the 'Principle of Equal and Opposite Unpopularity' to explain this phenomenon of UGC operations. In this way the UGC will be kicked, like a football, by both sides, time and again.

As long as the UGC remains slightly unpopular with both, it should be taken as vote of confidence from both the parties. Therefore, criticisms of UGC by students, teachers and university administrators on the one hand, and by bureaucrats

in government, members of parliament and even by the Cabinet, on the other, should be taken as a natural course, and in many cases as true compliments. It does not, however, mean that the UGC can do no wrong. In fact, wrong is done by it often, and much of it is of a serious nature, for its role is highly complex and problems have no limits. Once, due to lack of proper care, a less than fully comprehensive plan is worked out, ignoring global research findings, investment in projects goes down the drain and achievement is reported only on paper.

Accepting senior roles in UGC is like the 'Kiss of death', demanding greatest alertness for success in conceiving and launching of countrywide projects on higher learning. The fact, however, remains that the policies are formulated by academic peers, who must be held responsible for failure, and the Commission functions through Review Committees, Visiting Committees and other special committees, largely drawn from universities where the problem of higher education is a part-time interest of peers out balanced by greater interest in their subject.

The University Grants Commission of India is based largely on the sophisticated model of the British University Grants Committee. If the British model of the UGC works and is largely successful, like the unique British monarchy, it is due to the special characteristics of the British society, its institutions and values. Such a model can also work in some Commonwealth countries, but their real and full success in Bangaladesh, India and Pakistan may not be possible to the extent experienced in Britain. While the British UGC is not a statutory body, the Indian UGC is a statutory body with links with the Ministry of Education. In many other respects there are significant differences between the British pattern and its application in Commonwealth countries.

The potentiality, adaptability and effectiveness of the UGC, the Peers and the universities can be judged from the state of the major transition which is round the corner. The sector 'Plus

Three' of the scheme of 'Ten Plus Two Plus Three' is at the doors of our universities. Soon it will get in. There is no clear thinking about it. The pre-linkage with 'Plus Two' is vague or rather absent. No worthwhile coordination between the merchants of 'Plus Three' and traders of 'Plus Two' has taken place. As a result, in a university some disciplines will add one more year as a consequence of 10+2, while some other faculties will not add the extra year and will maintain the *status quo*. Some departments will regulate their courses in 'Plus Three' and some departments will hold on to the earlier courses despite the addition of one year in 'Plus Two'.

The concept of foundation courses is also not clear. This issue requires intimate and exhaustive group study over years. Should each faculty work out separate courses or should there be a uniform foundation course? Books for plus three are not in the market. They are likely to be hurriedly prepared and belatedly published, ns we experienced in the case of the 'Plus Two' stage. The very philosophy of adding one more year of teaching, without improving methods of learning and instruction, will not raise standards.

No intimate dialogue took place between teachers of 'Plus Two' and 'Plus Three' for handing over and taking over the human crop in students, nor have all the heads of departments in a university finally identified general principles of uniformity at the 'Plus Three' stage. This was the time to work out the pattern of question papers for each course which could have been incorporated in syllabi so as to reap the advantages of examination reforms formulated by the UGC a few years ago. The worst thing, however, maybe the lack of uniformity in eligibility conditions for admissions to the first year of the 'Plus Three' in various courses, if proper care is not taken.

The 'Plus Three' is already there in the court of universities. No comprehensive preparations to launch it have been made by them. Policies are not yet clear. Under these circumstances

chaos is the obvious result. One wishes that this chaos could become a blessing in disguise whereby we may not have a fixed and rigid syllabus; a teacher may teach the subject as he thinks proper; the teacher examines his students and awards marks or grades providing a holiday to the examination branch; and admission to higher classes is made on the basis of such evaluations. The overall outcome of these innovations must have brought good results of value and modernity. But, alas, this will not happen. Courses will be hurriedly worked out and will be "quarter-heartedly" taught by teachers, and students will depend on their sharp memory already developed to take examinations.

The same 'telling and listening' business will thrive in higher education. It will worsen the affairs of our universities as a new plan often does in the absence of proper analysis and understanding and sufficient preparations. The first batch of 'Ten Plus Two Plus Three' will suffer in the same way as a guinea-pig does in an experiment which becomes unsuccessful. The Congress Government worked out this scheme. The Janata ministers often decried it and thereby left universities in suspense whether the scheme will ultimately be implemented or not.

The Prime Minister twice declared that in six months educational reforms will take place. Two sets of six months have already passed since his announcement. Even if the present-day leaders had not spoken about 10+2+3, it was certain that universities were not going to do their homework properly and on time. Whichever way the things may move, the 'Plus Three' is going to be a failure on many counts.

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CHAPTER 4

Misery of Being A Vice-Chancellor

Whenever a new Vice-Chancellor joins a university, for a few weeks there is an atmosphere of cheer and goodwill all over the campus. Garlandings, parties and welcome speeches are the most important events at this initial stage. But it does not take many months, depending upon the size of the university, for "hai-hai" slogans and demands for his resignation to become a common affair, generally resulting in his leaving the office before the expiry of his term. Only a thin crowd bids him 'farewell'. Why does this happen? What are the factors and in what ways is the personality of a Vice-Chancellor responsible for such an end? These are the issues that need to be analysed.

A Vice-Chancellor's administrative task could be categorised into the following areas: his equation with the state authorities for getting enough funds and for generally upholding his decisions and continued support of his actions. The second one is, his relationship with the "barons" of the university. The professors and the heads of departments, in turn, need the approval of the Vice-Chancellor for their decisions, as also his continued support.

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Ben-David summarises the governance of American universities as: "devolution of authority in intellectual and academic matters from the board of trustees and the president to the department and its individual members. This, coupled with the vigour of administratively strong presidents, is the source of unequal adaptiveness and innovativeness of the American university".

Our Vice-Chancellors are comparatively powerless administrators and a major area of resentment is the monopoly power of the prestigious professor, as against devolution to the ranks. The younger teachers describe him as a sort of academic baron with his control over grants, power of selection. etc. Though the younger teachers participate in council and departmental meetings, policy has generally been already determined by the seniors.

Analytical work on the administration of higher education in India is minimal if not altogether absent. Due to this vacuum it appears that higher education has become unmanageable. Today 47 universities are closed, that is. about half the universities. The very fact that so many universities are closed makes one feel that the pattern of university administration requires innovation.

The most general problem faced by the top administration of a university is the existence and dynamics of rival groups in various sectors—students, teachers and ministerial staff. The rival groups opposc each other irrespective of the merits of a case. Examples of this subjective attitude are given below. Out of a dozen applicants only one teacher is to be promoted. Most out of the remaining eleven will then start opposing the Vice-Chancellor.

If certain professors are associated with various activities, their rivals automatically become critical of the top administration and it docs not matter who got the chance and how deserving one was. Comparatively, the university teachers

The third area of a Vice-Chancellor's concern is the actions and reactions of the younger teachers, who are generally at cross purposes with the heads of departments. The fourth area of a Vice-Chancellor's concern is the body of students from undergraduate to research level. This group has no constant 'movement' but adhoc issues do come up from time to time, needing decisions and actions. The fifth area is the karamcharis and their prohlems. The sixth covers certain unforeseen circumstances that may crop up in society as a whole like the imposition of the Emergency, etc.

Perhaps, in our country higher education has practically become ungovernahle and its administrative rituals may well he on their way to ohsolescence. The patterns of governance have not changed since the medieval universities adopted the monastic style of administration, developed by St. Benedict of Nursia in 530 A.D., under which the head was to call together the whole community (then small in number) in a meeting to discuss the issues in hand. In the light of the discussions the head would minute the decisions and initiate action. The head was only the first among equals. The source of the authority was derived from the consent of the governed masters and teachers, who were also required to take "an oath of obedience to university statutes". Self-government was indeed the principle with a dutiful attitude on the part of all.

In England the government of the universities of Oxford and Cambridge is described as "direct democracy" while in other universities it is identified as "a combination of an oligarchy and a representative democracy". The Robbins Report of the sixties identified two pathologies in the governance of universities—first, the predominance of lay membership on courts or senates and second, the excessive power of the professors, eclipsing the younger teachers whose revolt is generally a kind of reaction. The same is true about our universities.

chaos in education? Perhaps, the Prime Minister should consider discussing these issues with the leaders of the political parties because the issue is a vital one. If the Prime Minister does not succeed, perhaps, like China's, our universities should be closed for a decade instead of allowing them to be endlessly dragged from crisis to crisis.

The Kothari Commission on the role and appointment of the Vice-Chancellor, expected him to embody the spirit of academic freedom and the principles of good management. But the famous Clark Kerr visualises certain new roles for Vice-Chancellors and Presidents. His conduct will be less in the committee room and more in the open. He will appeal to mass groups and less to representatives. He will be more visible, more accessible, more of a public personality. Indian Vice-Chancellors need to play these roles.

As these roles are equal to that of a minister, minus the latter's powers, the Vice-Chancellor should move from the present status of the first among equals to the status of a lieutenant-governor on a campus; otherwise he will continue to get squashed. One has to keep one's fingers crossed about normalcy on our campuses even if the V.C. has the powers and status of a lieutenant-governor. But at least a V.C. would not be locked in or locked out and violence will not take serious forms. An additional way out may be to allow the emergence of at least one private university for the sake of change and some sober effect.

While the office of the Vice-Chancellor is full of troubles the real misfortune hits a university when a bad Vice-Chancellor is appointed through political manipulations or otherwise. There are certain characteristics comprising favourtism, parochialism, short sightedness, political approaches and lack of academic and administrative ability which make a Vice-Chancellor destroy a university for a long time to come. Unfortunately we neither conduct detailed case studies on administrative problems in universities and colleges nor publish them. If the king of a

appear to be a jealous lot. Tolerance is not one of their virtues. Whenever attacks are launched in an academic council, the academic barons prefer silence, foroing the chairman to give some sort of defence. The brunt is thus borne by the Vice-Chancellor.

Leaders of teachers' unions generally bargain for their personal promotion and once they achieve it they either leave the union, or lose interest. Students also behave in the same way. If union elections are announced the group likely to lose presses for postponement. If the Vice-Chancellor agrees to the postponement, some groups go on a hunger strike or agitation. If the university goes ahead with the elections, the other groups go on a hunger strike. Student groups are constantly in competition with each other to gain popularity for themselves and for their political masters.

Whatever a Vice-Chancellor decides, opposition and stir are bound to be there, unless it is his own resignation. The man goes and the next one will also leave. This has become the rhythm of the university's music.

A microscopic analysis reveals the presence of the same pattern of rivalry and mutual dislike among officers and karamcharis. The officers control groups and hold many strings, while the popularity of the leadership of the karamcharis' union depends on how many gains-deserving or undeserving—they can obtain. Performance of duty and the welfare of society do not count at all. A Vice-Chancellor, who does not carry purses of white and black money for all labour demands faces problems of trade union attacks.

The basis of these problems, of course, is mostly political and it should not be difficult to name the political parties. For their short-sighted interests and certain immediate gains, the political parties should not weaken the country by interfering with campus life. What could do greater harm to a nation than

take place. Then comes the valedictory function, to match the inauguration, with findings and recommendations of the seminar and all the delegates go back.

What after that? If we find a satisfactory answer to this question, then it should be taken for granted that the processes of innovation and reform are on, otherwise the *status quo* reigns. After some years, more or less the same gathering meets again having the same rhythm and result. This ritual goes on over the service period of an average academician. Achieving implementation for change in academic affairs is the real challenge for a Vice-Chancellor. This objective should be the manifesto adopted by the incoming Vice-Chancellor for his academic role.

Regarding the administrative responsibility, the Vice-Chancellor designate, of at least some pioneering universities, may endeavour to distinguish between the prevailing vague and contradictory criteria of administration, and the possible criteria having harmony, clarity and efficacy. For such a scientific approach they need to experiment in 'management by objectives'. Management by objectives minimises the use of power and maximises control of administrative processes through a clear specification of goals. All involved persons get properly motivated in achieving set goals.

It is also seen that more than half of the term of a new Vice-Chancellor is largely devoted to encountering attacks from various quarters who were themselves aspirants for the office. Each aspirant runs his own group and gang of supporters. The last months of the term merely drift. The incumbent suddenly supplements his academic and administrative abilities by deeper religious rituals. He devotes more time each day in prayers for seeking divine support to pass his remaining brief period peacefully. He obviously wants to have some grace and respect at the time of handing over the office.

More problems arise if the Vice-Chancellor is to pick up some coterminal officers as his team. The personality

country can be controlled under the model of 'Can do no wrong' it should be simpler to evolve an administrative pattern wherein a Vice-Chancellor 'Can do no wrong'. What it requires is research and then courage to experiment with administrative ways, different from the *status quo*.

A Vice-Chancellor, the captain of Higher Education, should be the best type of craftsman. He should have ability to resolve big issues. What is needed most on our campuses is to take the faculty out of the attitude of indifference towards academic work and students. The tasks of instruction, curricula and evaluation are today neglected by the faculty. There have been Vice-Chancellors who were more than successful in using judgement in severe crises, but not one person succeeded in making the faculty take active interest in academic issues in a university. It is unfortunate that most of our faculty gets organised only on the sole issue of opposing authority. For a change our faculty need to get organised on academic issues covering educational reforms. How can such an essential and vital change be brought about at least in a few pioneering universities, is indeed the number one problem of Indian scholarship. One is pained to see that seminars and conferences, which can help in this respect, are conducted more as show-activity spending funds, a poor nation's money, obtained with great difficulty.

This 'show business', doing for the sake of doing, in a competitor's spirit either against a sister department or against rivals in the same department or doing it as a routine without any such rivalry, is often devoid of solid results. Very little knowledge and determination emerge from such academic gatherings towards change in right direction. The result is the continuation of the *status quo*.

Suppose a department conducted an All India Seminar on faculty development. About three hundred delegates from all over the country travel and are together for a couple of days. A few papers are read. Some useful, as well as useless, discussions

should emerge as the penultimate step to protect and regulate a Vice-Chancellor.

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characteristics of coterminal officers generate their own reactions and problems. As a result, new groupings take place in the University as a whole in the spirit of mutual defence pacts. The atmosphere of cold war becomes prominent for confrontation.

Perhaps, these developments can be minimised, or eliminated altogether, if senior professors themselves form an informal guild to protect and regulate tbe new Vicc-Chancellor. This professorial guild should comprise professors not having administrative ambitions. Thc master academic plan of the university concerned should be their baby—in birth, rearing up, protection and growth. No new Vice-Chancellor should be allowed to upset this academic plan. Let it become a strong convention that thc new Vice-Chaocellor invariably supports the master plan. If such a guild is not formed, selfish endeavours of finding out effective influences by local elements, over the new Vice-Chancellor, will continue and individual gains so obtained may not be in the best interests of a university.

Another way to check this trend is to appoint coterminal officers only for a year. During this year the worth of coterminal individuals will be tested, chain reactions will also be less, and suitable arrangements can be made by ooe year old Vicc-Chancellor in thc interest of a university, without committiog all years of a term in the spirit of 'Sinking or Swiming together'. This approach of togetherness is the most unsuitable device for adaption on a campus, where objectivity should be the sole methodology.

Thc reason for thc failure of thc office of the Vice-Chancellor in our country is mainly that thc professoriate is not playing its constructive group role of protecting and regulating a Vice-Chancellor. If cver thc statc of university administration achieves thc ultimate target viz., 'a Vice-Chancellor can do no wrong' it is necessary that the proposed guild of professors

All these expectations from a professor have a century-old background. Ancient and medieval universities looked for 'learned professors' when a Professor was invariably learned and a good scholar was always a professor. The professor then was concerned fully with the welfare of the 'whole student'. The concept of *in loco parentis* had taken deep roots and had become a part of the mythology constituting the professor's personality.

In those days, professorship was a 'Call to service'. It was never an invitation to poverty but it simply required indifference to material gain. Now, the professor has transformed himself into the 'man of the world', as a well paid citizen with high privileges and powers. After about 1850 the criteria in the making of a professor changed to include ability to pursue independent research. The most welcome Brahmin was born when post-graduate departments with emphasis on research were created.

Unfortunately, as a result, the undergraduate wing gradually became fun-culture of little interest to a professor. A virulent, lingering disease of '*Ph.D. ITIS*' spread in universities. Research became the single source of prestige, the Brahmin's sacred thread, and other roles of a professor suffered. These days reputed professors do not teach more than six hours a week and most manage to teach less. Generally no professor teaches undergraduates. This mode of behaviour is due to postgraduate studies and research. So, the roots got neglected for making the showy parts better.

Attractions of supplementary work with or without honorarium outside the university have changed the professor's own concept of his role and led him to professionalism. The university, once his home, became an agency where professors became both—a demanding party and also employers. The professor as a committee man is a power to reckon with. Just as once there was no appeal from the power of religious institutions without risking damnation, so now there is no appeal from the power of the Commitee men in higher education. The

CHAPTER 5

The Roles of a Professor

The professor is technically the teacher of the highest grade among university teachers although senior readers and senior lecturers in most ways also have similar roles to that of a professor. Now, what exactly is his role? How is his performance? Are his clients happy with him? These and many other questions need to be asked occasionally. The first claim on a professor is that of the students. They want him to be a good teacher—knowledgeable, well prepared for a class, articulate and sympathetic.

Parents want a professor to be a parent's substitute, *in loco parentis*, working as a guide. The faculty expects a professor to be a productive scholar leading other teachers to success. A Vice-Chancellor expects the professor to assist him through committee work and for problem solving. Professional subject societies expect his co-operation and participation. Government and other agencies of society also have their claims on a professor's expertise. The needs of his own continuing education demand many academic exercises from him.

convened on Wednesday afternoon it is felt that it spoils both the week-ends of concerned professors.

Professorship has been the butt of many a caricature. Richard Parson, an 18th century poet wrote:

I went to Frankfurt, and got drunk
With that most learn'd professor,
Brunk;
I went to Worts, and got more drunken
With that more learn'd professor,
Ruhuken.

At the same time, it is the professors who are behind the splitting of atoms and who keep our plans going, sometimes rolling. We do not question their contributions in various walks of life. The rare honour bestowed on the professor is to define him as one who thinks differently. But the fact is that the professor's giving up of their role *in loco parentis* is perhaps the single largest etiological factor in the troubles of modern campuses. At least in India, the role of being *in loco parentis* vacated by professors has been taken over by political parties.

All the prevailing disturbances are indicative of a silent kind of war going on between teachers and students. The only solution to the problem lies in professors striking a ratio-cinative balance between their roles as teachers and researchers, between their teaching of undergraduate and postgraduate students and between their roles as professionals, advisers and administrators on the one hand and their role *in loco parentis* with the welfare of the 'whole student' on the other.

During the last two centuries the growing forces of industrial revolution gave the expertise available in colleges and universities increasing importance and the 'knowledge industry' came into existence. The Western academician today is required to perform two additional missions in a society. First, to extend through applied research the wonders of industrial production

specialists in committee work are not the same good old teachers because they are forced to spend more of their lives in committees than in the classroom or library. These teachers are taught by committees how to become managers of a learning system. In each committee a crisis comes along regularly to convince the professor of his new importance in the wider sphere of university affairs.

He no longer notices that the mimeographed material from all his committees weighs more than twenty pounds a year. He succumbs to his committee responsibilities. Also, the students go down with him for, now they too, are allowed to serve on committees, to become responsible members of the academic community. The university has become a large public corporation. As committees begin to dominate the life of a university, the atmosphere of the classroom changes from one of a teacher with his students, to one of a committee man with a team of consumers.

The professoriate contains the components of all attitudes—the priesthood, bourgeois and proletariat—while the student population has more of working class representation today. But no unfortunate conflict has arisen due to differences of characteristics in composition of the professoriate. Campus Committee men and Chairmen are from the older faculty, willing, rather anxious to hold positions. They may be less prestigious in scholarly terms. They generally are conservative and seek ways of getting along with top administration. In many cases the top administration is also derived from the same group.

In the process of all this metamorphosis it is obvious that the professor has been getting more and more distant from his students. Pointing out certain characteristics of the type, Jayaprakash Narayan defined a professor as one who comes to work at noon and leaves before the afternoon. It is a joke in Oxford that if a faculty meeting in arts and humanities is

open to all possible approaches and a single person who is more resourceful, succeeds in getting things through. Within the Union Territory of Delhi there is much duplication, including that of numbers of universities, departments of teaching, and research, and even of area studies programmes. The most valuable set of priorities for Indian higher education appear to be the following:

1. Improvement of curriculum.
2. Modernisation of teaching and learning techniques.
3. Greater utilisation of existing resources.
4. Better ways of faculty promotions and appointments.
5. Identifying the real purpose of higher education.
6. Aiding the financially backward students
7. Selection of suitable students.
8. Production of books for all stages.

The most inexcusable failure of the Indian professoriate lies in not adopting modern methods of teaching and evaluation. Even 'Teacher's Synopses' fail to be prepared in our universities. Students are put in passive roles in learning and relevant academic literature is not written and published by our professors. During thirty years of independence, any other patriotic nation would have achieved a great deal of internal sufficiency in their book production but our achievements in this field are negligible. We don't have even our standard text books, which must be imported for millions of students.

Our professors have also to decide what quantum and variety of knowledge will meet the requirements of fundamental education or general education, in the context of our own situation. We cannot continue to adopt the details prescribed in 1857, or those adopted in 1936. In this connection, the things to be established are the objectives that should guide us and the criteria that shall give us a sound fundamental education at undergraduate level. Our professors can examine the struggles and attempts of their

and second, to advice on the mitigation of social evils so created. These roles were in addition to the traditional functions of the university to conserve, teach and extend the boundaries of higher learning. This was the public service function and brought the university in the service of the society. The Indian professoriate need not take up these tasks which are done by numerous councils and research centres. In the house of a university now there are many mansions—some to increase production and some to climinate the social evils of industrialization and technological growth, and some for other purposes. But let the main function be the education of the youth. For the main function there are numerous activities which the professors have to perform. Details of efficient working of universities, relevant and balanced contents of curriculum and ways of effective transmission of knowledge and culture are to be identified and employed by the professoriate of a nation.

The British system gave us a certain form of higher edueation which Indian scholarship has neither modulated nor properly screened while in Britain it has undergone numerous metamorphoses. Loeal needs and changes needed by our conditions have not been provided for by our professoriate. The issue of 'relevance' of university curriculum has not successfully been encountered by Indian scholars.

The balance between Humanities, Sciences and Social Sciences for delivery to educands has not yet been struck. Nor have issues of applicability of knowledge gained been properly examined and duly provided for. University study in our country still remains an abstract entity. Indian scholarship has to resolve the issues of relevance, practicability, numbers, costs and needs of the nation. It is already too late.

The question of priorities in higher education is again to be decided by the Indian professoriate, priorities concerning all facts—courses, students and teachers. At the moment no criterion of priorities is applicable. The University as an institution is

immunity from it. But the university faculty is supposed not to he over-powered by these evils. On the contrary, they are expected to assist society in defeating these evils.

But there is no remedy for the greatest of all tragedies, i.e., if the university faculty itself becomes indifferent, which unfortunately is the case at present. Faculty has lost its role of influencing society. We must regain this role. By cultivating a love of books and hy developing a hunger for achieving something in life and by sharpening a critical attitude towards evils in society, the professor and the general faculty can have a real impact on university students.

Through these efforts the treasures of culture, science, arts and technology will be unlocked and students will possess the key to unlimited self development. At present, our students fail in developing abilities of sound reading and learning, prohlems arising in the context of life do not appear before them in the process of learning up to the university stage.

In this way the abilities to achieve something in life and to fight social evils do not get promoted in the educands by the faculty and the professoriate of our country. High productivity in education, as in all fields of endeavour, is essential if society is to meet the spiralling costs of higher education and maintain its quality. Faculty members have got better remuneration but can continue to have it only if they are productive; they will be productive if they make greater group efforts. The professors of the future cannot afford the inertia and neglect that prevail today. In the universities and colleges of India as per 1975-76 statisties published by the U G C there are 2,996 Professors; 21,997 Readers and Senior Lecturers and 1,42,630 Tutors and Lecturers. (Tables 2 & 3), given below:

counterparts in these respects in other countries, before arriving at the package of fundamental and general education at undergraduate level. For postgraduate and research activities the professors have again to be objective, and selective, to avoid the wastage that we meet with in proceeding on the lines of a sleepwalker.

The problems before the professoriate are many and difficult and their intellectual abilities have yet to encounter and deal with them successfully. The professoriate has to develop the design of the nation's know-how for today and for the future. The professoriate bas to develop the methodology of making our youth and scholar walk together in know-how and productivity with their counterparts in other countries. The first group concerned with this is India's academicians—not the politicians, nor tbe army.

All concerned in higher education need to orient themselves with the following six purposes of higher education at least once a year, so tbat they can adjust their efforts properly:

1. Development of capabilities in society.
2. Further educating an individual for roles of leadership in in thc interest of mankind.
3. Evaluation of a society and to help it meet its deficiencies.
4. Training scientific and technical manpower in addition to general scholarship.
5. Developing analytical and synthetic abilities in a graduate.
6. Preparing persons for an unknown future.

Teachers over the ages have undertaken these valuable and seminal responsibilities. This will always be the case. But our scholarship has managed to exist and thrive in the absence of many of these objectives. No doubt there is strife and tension, corruption and inefficiency, and indiscipline and inertia affecting the society generally and professors cannot have complete

1	2	3	4	5
1975–76	16,513	1,06,243	13,243	1,35,999
	(12.1)	(78.1)	(9.8)	(100.0)
1976–77	16,797	1,07,255	13,421	1,37,473
	(12.2)	(78.0)	(9.8)	(100.0)
1977–78	16,391	1,11,692	13,119	1,49,202
	(11.6)	(79.1)	(9.3)	(100.0)

Note: Figures in parenthesis indicate the percentage of the cadre to the total staff in the corresponding years.

This faculty population of about 200,000 in colleges and universities plus the larger number of teachers of 'plus two stage' in secondary schools have to regularly think about the problems of higher education. They will have to involve in group discussions to arrive at proper decisions. The implemention of reforms will have to be done with devotion. Each year, the Nation celebrates 'The Teachers Day'. Let this festival he associated with some constructive academic tasks. The Ministers of Education, Vice-Chancellors, Directors of Education, Heads of Departments and College Principals etc. should generate atmosphere for seminal tasks, more than routine activities, during the week of the "Teachers Day". The programmes of writing new books, teaching reforms and compiehension problems of students should be some of the main themes. The results will be achieved if the rarest of human resource, viz., thinking, is applied and utilised by the teachers of a nation. The alternative is destruction.

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Table 2

Size of University Faculty 1971 to 1978

Year	*Professors*	*Readers*	*Lecturers*	*Tutors/ Demons-trators*	*Total*
1970–71	2139	3324	14,389	1767	21,619
	(9.9)	(15.4)	(66.5)	(8.2)	(100.0)
1971–72	2273	3616	15,296	1657	22,842
	(10.0)	(15.8)	(67.0)	(7.2)	(100.0)
1972–73	2460	3938	16,431	1875	24,704
	(10.0)	(15.9)	(66.5)	(7.6)	(100.0)
1973–74	2639	4295	17,675	2050	26,659
	(9.9)	(16.1)	(66.3)	(7.7)	(100.0)
1974–75	2803	5141	17,700	2186	27.830
	(10.1)	(18.5)	(63.6)	(7.8)	(100.0)
1975–76	2996	5484	20,658	2486	31,624
	(9.5)	(17.3)	(65.3)	(9.7)	(100.0)
1976–77	3055	5707	20,824	2556	32,142
	(9.5)	(17.8)	(64.8)	(7.9)	(100.0)
1977–78	3477	6,629	23,837	3199	37,142
	(9.4)	(17.8)	(64.2)	(8.6)	(100.0)

Note: Figures within parenthesis indicate the percentage of the cadre to the total staff in the corresponding year.

Table 3

Size of College Faculty 1971 to 1976

Year	*Senior Teachers*	*Lecturers*	*Tutors/ Demonstrators*	*Total*
1	2	3	4	5
1970–71	13,185	80,468	13,604	1,07,257
	(12.3)	(75.0)	(12.7)	(100.0)
1971–72	14,395	88,617	13,350	1,16,362
	(12.4)	(76.1)	(11.5)	(100.0)
1972-73	15,068	91,701	14,051	1,20,820
	(12.4)	(75.9)	(11.3)	(100.0)
1973–74	15,226	1,00,177	14,500	1,29,903
	(11.7)	(77.1)	(11.2)	(100.0)
1974–75	16,396	1,03,456	14,100	1,33,952
	(12.2)	(77.2)	(10.6)	(100.0)

CHAPTER 6

UGC Efforts on Faculty Development

The word faculty is derived from the Latin Word 'facultas', which means: ability, natural attitude, and power or authority. When education got institutionalised and teaching got professionalised the teachers got grouped and categorised as faculty in general, and in groups of related subjects in particular. To be a teacher in life has its own advantages and disadvantages, but it is certain that the person is comparatively unbridled. True, a teacher is to learn at least twice, if not more, yet there is no control on her or him, except the instinct of self-analysis and introspection.

Often, the vanity in a teacher tempts him to forget the possibility of remaining an ignoramus. Confucius warned that the scholarship which consists in memorisation of facts does not qualify one to be a teacher. Oscar Wilde made a sweeping charge that everybody who is incapable of learning takes to teaching. The experiences of Bernard Shaw made him to make a damaging comment, "He who can, does. He who cannot, teaches".

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It is only recently that we started some minor procedures of faculty development. Most of our University faculty is recruited when in their twenties and are retired only in the early sixties. It is necessary that University teachers who serve for about 35 years continue to improve in competence, enhance their talents, widen their interests and periodically undergo self and objective evaluation of their academic and personal growth. Even the University teachers in India are critical of irrelevant courses taught, primitive ways and uninspired modes of teaching conducted mostly through passive lectures.

Our teachers are aware that the citizens, students, administrators, and politicians are not proud of a teacher's role and performance. The subject, how to be a better teacher, also has rich literature available these days. But most of our University teachers having grown in their subject of specialisation are unfamiliar with such a general topography of the higher educational landscape and have not formulated systematically their theories of teaching. Nor have they properly evaluated over years the degrees of effectiveness of their own teaching routines. The result is that the classroom has become a teacher's castle, and no one can sit in judgement over a teacher's teaching work. It is still a prickly subject.

As a teacher grows in age certain obvious characteristics get set into his personality. The characteristics of increased pre-occupation with the inner-self and decreased investment in others become common. Such an attitude is not conducive to a teacher's development and hence, it has to be resisted in an organised manner. Research grants, participation in professional conferences, study and sabbatical leaves do help in the growth of a teacher, but these programmes are not enough for the required professional growth of a University teacher in his overall balance sheet.

Unless a University teacher is challenged, mostly through student evaluations and ratings of his teaching effectiveness, he

Realising the weaknesses stated above, and also other facts, viz., need for continuous learning by a teacher, that too through self-analysis and personal efforts, minus red tape control, the reformers of modern education have come out with the concept of "Faculty Development". A lot of useful and practical global literature has appeared in the area during the last thirty years. The consequence is that alert teachers now divide equally their time between teaching and learning activities.

Higher education in India, through various reports and studies so far conducted, has mostly emphasised some structural changes. The earlier pattern was High School, Intermediate, Bachelor's degree, Master's degree and lastly the Ph.D. Programme. Then came the pattern of Higher Secondary, Three years degree programme, Master's degree and then the Ph.D. Suddenly, we developed the famous formula of 10+2+3 plus Master's+ M.Phil., then Ph.D. The structure of 8+4+2 plus others appear to be coming up.

While we are busy in these not very productive exercises, the western world examined some more important relevant factors like: how to continue to develop the faculty; how to improve modes and methods of instruction so as to make them more effective; how to improve the learning needs of students; and how to develop abilities of language, analysis and synthesis in a student.

We, in India forgot the golden objective of teaching— the student should get along at the earliest without his teacher. We performed rituals like rearranging courses in different patterns. Letter grades superceded numerical marks. Terms got replaced by semesters. But teaching methods remained almost the same. These issues practically pushed aside the key issues, viz., ways for better teaching and methods of better learning; cultivation of sound reading ability and habit, and necessary competence in analysis and synthesis leading to life-long self-education.

Listening" marketed abroad, and they are also inexpensive. The UGC could acquire and use these for teachers under the Faculty Development Programme.

Another facet of faculty development should cover techniques to make teachers sensitive to the dynamics of a classroom. Such techniques have been developed by the Harvard University and many others. Lessons on student needs, rates of growth, possible deficiencies and attitudes, go a long way in developing a faculty. Learning abilities of students, more than half of the story, must be fully studied and duly provided for in any instructional development programme.

Our faculty should get regular feedback on their teaching behaviour, in relation to students' learning details, for which several devices have been evolved to serve as a mirror for the teacher. Numerous tables are in use to judge student reaction to teaching and to the courses taught. Let us utilise such tables in our universities. Our students have agitated many times, demanding "Teach us well". There is at the present neither the accounting nor the cost accounting of the classroom teaching. Customers of higher education certainly mind being cheated and short supplied. Spurious teaching must go. It is one of the major reasons for student revolt in India.

We need to forget for sometime the urge for structural changes and devote our energy to launching a movement for faculty development by improving techniques for better teaching, by inventing better learning methods, by cultivating a strong reading ability and habit in our students, and above all by putting our end product on the path of continued self-education. These are the most important and relevant factors in modern higher education, and dissemination programmes through a newsletter by the UGC on these areas need to be conducted for better progress.

During the Fifth Five Year Plan, the University Grants Commission provided greater financial support for certain

is not likely to make much effort to gather energy for his development. Secondly, the urge for self-examination aimed at 'self-insight' is the route for the development of a teacher. Hence, a teacher should encourage students to evaluate his teaching each year. This will open the way for improvement.

The how of the faculty development must include extension of knowledge in a teacher, both umbral and penumbral. Cross-fertilisation of disciplines is on the increase in Indian Universities, but real interdisciplinary courses have yet to get established. Our Universities need regularly to organise lecture series and discussion groups to analyse current national educational issues and developments in the teaching methods achieved abroad.

Today, the UGC, Universities and educationists are trading in numerous ideas, which fail to reach the ordinary teacher, the most concerned actor. Lack of dissemination in an organised manner results in non-implementation of good ideas and programmes. A brief newsletter, not a research journal, covering discussions on faculty development and innovative teaching experiences of some teachers should be published regularly.

Reading, thinking, writing and discussions in groups 'on areas of teaching and learning methods' will benefit our teachers all over the country in their development. Faculty development should no more be limited to an individual's isolated efforts in earning an additional degree, practically an end-in-itself. The common excuse of non-availability of time need not be made by a faculty for evading efforts at self-development.

The other area is that we, the teachers, need to continue to develop our teaching skills and methods individually. Regular workshops on better teaching methods in general, and on teaching in various sectors of knowledge in particular, are long overdue. The University Grants Commission needs to help organise such workshops at the earliest. There are sound programmes on "Efffective Teaching" and "Effective

record the efforts in tapes and films for wider use. Also, it may be much more useful to conceive comprehensive plans of integrating faculty development programmes with COSIP and COHSIP and to prepare and publish faculty development manuals on different disciplines. This could be the basic material to make the participants perform comprehensively. In this way the investments on these programmes would not be confined to the limited advantages for some individuals who are able to meet certain expert individuals. Assistance of documentary films making department of various state governments can be sought for the purpose.

At present, our teachers are by and large working as agents in purveying data and information. It is not the fashion among college faculty to make efforts to understand college students and to ask them questions of implication. Under such conditions students do not develop the required insight and point of view. There is thus no adventure of ideas for synthesising practice and theory and for finding a way out between the abstract and the concrete. The faculty in higher education does not examine these issues in an organised way even once in five years.

Let us try to understand the formation of approaches by new entrants to a faculty. Brand new teachers consciously or unconsciously take their own teachers as models—good, satisfactory or bad—and draw conclusions before they start teaching. Once they start the ritual there is no further intake from established successful teachers, older or more experienced. This is the most serious gap in the equipment, and further enforcement, of a young teacher. The question arises as to what steps we can take? The following ways offer themselves:

1. The senior faculty may help young teachers in their development.
2. The University may organise short-term programmes for new teachers.
3. A kit containing tapes and films on the subject be prepared and made available in academic libraries for use; and

activities to promote the development of teachers by keeping abreast of advances in their subjects. The scheme also conceived of placing a young teacher in the contact with an expert in the field for exchange of ideas. The following programmes were floated to achieve the objectives:

1. University leadership projects.
2. All-India advanced level institutes for six weeks on a topic.
3. Refresher courses of six weeks during vacation; and through correspondence with two weeks contact.
4. Fellowships to college teachers with extra payment of Rs. 250/- per month.
5. Provision of associateships for a period of 8-12 weeks (out of one year).
6. Short period conferences.

The UGC worked out some guidelines for these programmes and operated these schemes. The findings of evaluation, if any, of these courses are not available. There are two observations about this programme. It was very desirable that elements of COSIP and COHSIP (projects of qualitative improvement in teaching in Sciences, Humanities and Social Seiences) should also be properly integrated with all these projeets of faculty development. Secondly, while six projects of faculty development were in process, care should have been taken to produce some tapes and short films for wider distrihution among various colleges for use by others who could not get awards under various schemes and for review purposes for those who participated in these schemes.

It was also possible to avoid repetition of efforts of experts by producing tapes, slides and short films—with these critics would have found it easier to evaluate the programmes. Tbe Soviet Union adopted tbese methods in 1930s to improve its faculty. Let us hope that in future the UGC will adopt modern methods to

development. Instructional development comprised curriculum development, teaching diagnosis and training in improved methods. A study on types of faculty development was published by John A. Centra in the *Journal of Higher Education*, 49, 1978: 152-162. This work is worth study by the organisers of faculty development, particularly for evaluating the achievements of their efforts in this direction.

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4. A curriculum on college teaching can be developed and offered as a formal course.

Our universities may adopt one or more of the ways mentioned above to achieve some improvment of instruction in the teaching-learning-enterprise. Some programmed-learning-packages on college instruction are already available in universities abroad and they could be purchased and examined by our university authorities. There is no doubt that universities and colleges have weaknesses in their primary function of teaching, which is pedestrian, ranging from mediocre to poor. We have so far not evolved a mechanism to improve teaching in higher education. There is yet no sound mechanism for faculty evaluation on teaching, research and publication.

Objective faculty evaluation is necessary for eliminating incompetence and for honouring effectivity. It should be one of the ways of academic life. If evaluation can be integrated with professional dignity, it is likely to be successful. It should be impartial and the attitude of judgement of good and bad should not be there. Consistency in details of processes need to be maintained

So far, faculty evaluation in India is being done in some way by subject experts at the time of interview. The administrative head of department does it through his regular contacts with colleagues, but keeps the findings as a secret only in his mind. So also, students evaluate faculty, but do not place their views on record. Once they leave the institution the views go with them. If the details of faculty evaluation emerge from faculty associations, it will be much easier to implement them.

The concept of faculty development was always there but not in the expanded form of the seventies. In 1975 Bergquist and Phillips recommended a model with three components—instructional development, personal development and organisational

CHAPTER 7

The Rise of Student Power

A student enters the university in his or her later teens. Emotion-based egocentrism is no more there. Delight in collecting objects and facts becomes a habit and he begins to experience a new phase of creative expansion. Freud calls this period the return of the repressed. Puberty brings in new phenomena and with it the university's training in analysis and synthesis is supposed to take place. Learning the abstractions of older people does not harmonise much with sexual discoveries and emotional bindings of this period. This age is not an ideal one for serious studies, unless one is in an "*ashram*" and observing '*Brahmacharya*'. Mao had a different scheme for this age group. Elsewhere in the world there were revolts against conventional morality which interfered with natural expression and function.

In ancient times *Gurukuls* were in remote areas. Medieval European Universities too were in isolated locations and gowns rarely contacted the towns. The Church had a rigid routine from breakfast to supper. The student, largely from the "better classes" started as a 'ward' of the university, fully encapsulated and remained so perhaps up to the end of the 16th century.

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in India was a limited one, mostly nttacking the university establishment. They did not revolt against religion. Nor were evils like the caste system or political corruption reasons for the outbursts. Student involvement in the affairs of the country had its real origin under the leadership of Mahatma Gandhi when he launched the Non-Cooperation Movement in 1920.

In 1920, the first All India College Students Conference was held in Nagpur. The National Student Federation of India (NSFI), as a party, was born during Non-Cooperation Movement In 1930 the Hindu Student Federation (HSF) was founded. Mahatma Gandhi's Civil Disobedience Movement in the 1930s contributed to the formation of another party in the All India Students Federation (AISF) in 1936. The year 1937 saw the formation of the Muslim Students Federation (MSF) demanding a separate Muslim State. In 1940, there was a split in the All India Students Federation (AISF), due to the communist support of the Second World War. As a result, the nationalists formed the All India Students Congress (AISC) in 1945.

With the achievement of independence the student movement got weakened. The ruling All India Congress Committee in 1949 established the Youth Congress. In 1950 the ruling Congress established another party in the National Union of Students (NUS), which became ineffective by the year 1958. After this, a new party the National Council of University Students of India (NCUSI) was formed. Lastly, we saw the Akhil Bharatiya Vidyarathi Parishad growing in strength during the last two decades.

It is apparent from this brief history that after 1948, the student movement in India had no concrete aims but parochial feelings demanded striking for regionalism, linguistic causes, and to some extent—caste approaches. The superpowers also entered the fray, one supporting some party and the other supporting another party.

Between 1500 and 1800 the student developed into an apprentice cleric under the rigid model of a pious, righteous and educated gentleman. Cambridge codes envisaged a student as decorous, modest, soberly attired, making college his habitual home, not loitering in the market place and shunning alike the hotel and the tavern. The years 1800 to 1950 withnessed great changes in the status of a student coinciding with the liberation of universities from religious organisations. The individual student got a considerable degree of freedom, but the faculty still took all decisions. The University's authority was practically unchallenged.

The shape of things to come emerged when the first student union in U.K. was organised in 1884 in the University of Edinburgh by a student named Fitzroy Bell. In 1877 Amherst College in U.S.A. saw its President giving considerable responsibility to students by withholding the Presidential veto. In 1938 the British National Union of Students issued "A Challenge to the University: A Report on the University life and Teaching in relation to the needs of Modern Society." The degree of militant attitude thereafter was on the increase, with demands of right to share in the government and administration of the university.

The period after 1950 witnessed a real upsurge on the campuses of the world and the inheritors of both Panini and Pythagoras showed discontent, dissent and hostility. The main areas of revolt were cultural and political and also against the university establishment. Students in the West wanted many changes, including replacing Darwin's 'Survival of the fittest' by the philosophy of interdependence of all things and species in nature; placing sensory experience ahead of conceptual knowledge; stressing cooperation rather than competition and many other issues. The objectives of the revolt were to reform the university and society at large.

Students in India did take part in many phases of the freedom movement But after independence the ambit of student revolt

Education. In 1975-76 the number was 24,26,109. The following table shows the percentage of growth:

Table 4

University Enrolment 1961 to 1978

Year	*Total Enrolment*	*Increase over the preceding year*	*Percentage Increase*
1960–61	5,56,559	75,025	15.6
1961–62	6,63,661	1,07,102	19.2
1962–63	7,52,095	88,434	13.3
1963–64	8,42,110	90,015	12.0
1964–65	9,50,277	1,08,167	12.8
1965–66	10,66,884	1,16,607	12.3
1966–67	11,90,713	1,23,829	11.6
1967–68	13,70,261	1,79,548	15.1
1968-69	15,66,103	1,95,842	14.3
1969–70	17,92,780	2,26,677	14.5
1970–71	19,53,700	1,60,920	9.0
1971–72	20,65,041	1,11,341	5.7
1972–73	21,68,107	1,03,066	5.0
1973–74	22,34,385	66,278	3.1
1974–75	23,66,541	1,32,156	5.9
1975–76	24,26,109	59,568	2.5
1976–77	24,31,563	5,454	0.2
1977–78	25,64,972	1,33,409	5.5

Student protests can be classified under the categories of Politieal Protests, Economic Protests, Moral Protests, Educational Protests and Protests for Fun. The analyses done by Ross of student unrest in India shows the following:

In the year 1962-63, ninety-six demonstrations were recorded all over India. In 21 eases students manhandled someone or the other and pelted stones. In 17 cases they went on strike, including hunger strikes in nine cases. In the rest, they abstained from elasses

Unfortunately, the people in this country, instead of developing the national pride of belonging to the integrated culture of India, found greater interest in being known as having their bosses in Washington, D.C. or in Moscow or in Peking. As adults had their political parties on these lines the mirror image was also seen in the parties of students. Vital issues concerning educational interests and development—cultural activities and social reforms, productivity and efficiency, etc., did not at all become the concern of the youth power of India.

There was no clear-cut philosophy expounded for student revolt in India in relation to the cultural and political areas of life. The traditional rules, inefficiency of a clerk, apathy of a Principal or Vice-Chancellor, neglect by a professor or inertia of a lecturer, and at times police lathi charges or arrests, were the immediate reasons for student revolts through strikes. Unreasonable demands were also behind many student strikes.

It was only after the call by Jayaprakash Narayan that the student force seriously participated in the struggle against the dictatorial and corrupt practices of politicians. The major event originated in Gujarat and spread to Bihar. Then came the Emergency and later the Janata victory in the 1977 elections. But unless a revolt covers cultural and other seminal issues, it could not be termed as a real movement, for example, of Berkeley in 60s.

Hence, what happened in India was a series of disconnected battles, rather than a movement of revolt with far reaching objectives. In many such strikes (as against a revolt) and instances of indiscipline (as against a movement) the political parties (as against a new philosophy) controlled the leading strings. JP's plan of total revolution had certain seminal roles for students to play and those roles are yet to be played. Our country had only 23,000 university students in the year 1900 A.D. In the year 1960–61 India had only 5,56,559 students in Higher

Students resent that professors devote almost exclusively or most of their time to research and that while they seldom produce dazzling research they are incomprehensive in the limited classes that they take.

Under these circumstances, sooner or later, the students will adopt embarrassing tactics to get more and relevant teaching from their teachers. Some scale of assessment of teachers is bound to come up. Vice-Chancellors and Deans will be unable to develop the scale. They will certainly be helpless in implementing it. The scale should emerge through the way of 'Bill of Rights' of student unions, and implementation details should be a sort of revolution in our universities, which saw no real reform throughout their entire existence.

Student unions in our universities will have to work out their long term plan of work, their objectives, including their ethics. It has to be decided whom they will be responsible to and what will be the criteria of their accountability. The role and responsibility of the unions must be determined in the event of strikes and violence. The most important factor is to make the student union an educational force, demanding and getting implemented learning reforms which bring about modernity.

The political affiliation of unions with various parties should be banned by law and students should not allow themselves to get exploited by the interests of political parties. The faculty need to play an important and effective role in this respect.

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and mildly demonstrated. Student participation ranged between 100 and 10,000. Only seven agitations lasted over five days. Regarding the causes of 96 agitations, 25 had no set purpose and occurred as a release of tensions or just for enjoyment. The remaining 71 agitations were against educational issues—dissatisfaction with administration, dismissal of a principal, inefficiency of lecturers, bad hostel conditions and the medium of instruction.

The students of the West through the revolt of the 1960s achieved many desirable changes. Libraries got more funds and staff. The curriculum became 'Cafeteria type' as opposed to a 'set-meal' character. Work-study programmes started and increased provision for independent study was made. He also got greater control over affairs affecting his life. This movement also established students' constructive participation in the power structure of the university. With these changes a new environment was created.

In India, on the other hand, the sporadic nature of casual movemeats, minus a solid social philosophy, yielded really nothing but a sort of police post in the Union Office, watching the Vice-Chancellor, bargaining, threatening and on occasion humiliating the administration in order to get some minor repairs done instead of having a new foundation. In most cases the demands were for the resignations of some persons.

A seminally conceived and intelligently conducted student movement, covering university and the wider society is long overdue in India to sbake up the moribund and anachronistic social values and to give a new pattern to education. Until that comes about, the student will remain a confused and perplexed customer or member or master (neither ward nor apprentice) of the university, doing more damage than good.

While professors are worried about the basic abilities of students for taking qualitative education, tbe students are concerned with the quality of professors and their teaching. The students want better teacbers and sufficient contacts with tbem.

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would be improper to say that he does not possess the moral sense.

On the other hand, sufficiently powerful conscience of a person often leads him to disobey an unjust order. It is a form of dissent wherein the person is willing to undergo punishment himself instead of punishing an innocent third person. Such a person is generally sure as to what will follow the disobedience. Here his 'no' serves a socially valued end, of course, with some cost to himself.

Indeed, a relatively small number of people reject authority when confronted with a situation of choice between hurting others and complying with authority. The other facet of disobedience is seen in our offices and institutions when on objective and constructive issues some persons refuse to carry out orders. Such persons do so because of their personal tussles or due to general ignorance. While acts of indiscipline of this nature must be punished, it is not always possible to do so. Tolerance at times gives better dividends and the person disobeying ultimately realises his fault.

Men have rebelled against their authorities for millenia. Revolts, revolutions, *Coups d'etat*, uprisings, rebellions and civil wars have been the very fabric of human history and 'Futurology' cannot exclude them. The intellectual thirst for revolt appears to be a permanent factor in man's make up. Engels considered it a physical law. Camus, in his celebrated work, *The Rebel*, distinguished between metaphysical revolt and historical revolt. But two constant factors, the sense of the intolerable and accusation go with any kind of revolt.

The rebel first endures injustice, want, hunger and oppression but there comes a point when he says, "No", which is then defined as rebellion. Expressions that become common are, "we are oppressed", "we are driven to desperation", "it is better to die than to prolong unbearable sufferings." Camus identified these

category of obedience is directed toward a malevolent purpose it becomes a heinous sin and we learn about many of them from the legal proceedings in various countries. Plato examined and doubted the morality of obeying when commands conflict with our conscience.

Conservatives fear that disobedience even of an evil act will destroy the very fabric of society. Hobbes spared the person who actually executed an evil order but he held the authority responsible for ordering the execution of the evil act. Humanists argue that moral judgements of the individual must override authority if the two are in a serious conflict. It is in this context that Jayaprakash Narayan advised the army and the police to examine, and if necessary, refuse, executing wrong orders, during pre-emergency days in India.

Shelley's, *Hymn to Intellectual Beauty* contains the following on obedience:

Power like a desolating pestilence,
Pollutes whate'er it touches, and obedience,
Bane of all genius, virtue, freedom, truth,
Makes slaves of men, and of the human frame,
A mechanised automation.

Applying one's judgement on the need for and the morality of an order like 'charge your lathis' or 'fire your guns' is not possible if policemen are amidst a crowd. But placing a senior officer under suspension if he had refused to send trucks and employees for a political rally is not that difficult a case for disobedience though it matters a great deal as to which authority is really behind an improper order which is required to be executed.

Scientific and psychological studies conducted by Milgram show that most people are unable to realise their real reasons and values in not performing an evil action even if they disagreed with what they were asked to do. The force of morality is less effective than the social myth that it is one's duty to obey orders. Even if a person performs actions ordered against his conscience, it

that political violenec is often employed by unreasonable men, but seldom without justification. Whilc new truths are prepared in the ecllars of violence, violencc engenders its own destruetion. The role of violence in revolt can be concluded by quoting Jayaprakash Narayan, "If wc eschew violenee it is not beeause of any moral imperative, but it is beeause violenee eannot ehange human beings".

A section of thinkers believes that there have been three silent revolutions in human history: first, when the professions were freed from religious control; second, when literature fell away from the professions; and third, when the press departed from literature. None of these were governments, although power and monopoly were commanded by them.

The right to rebel against a government should be in harmony with the conecpt of the 'Social Contraet'. It is believed that if a government becomes destructive, people have the right to alter or abolish it. Political philosophers gave the constitutional right of amending it as well as the revolutionary right to dismember or throw it out. Men have refused allegiance to what cannot be endured. It is well established that the duty of a government is to protect the rights of its people.

As far as the right of a people to rebel is coneerned, philosophers like Thoreau or Marx, Locke or Engels, Tolstoy or Gandhi do not disagree. The ability of the human race to manage its affairs is not yet perfect, with the result that the populace can escape its wretched lot either through the routes of a wineshop and/or church and temples, or by a social revolution. It may be that students and youth will bring about revolutions, and make them a success, whether against the Shah of Iran, Indira Gandhi of India or Bhutto of Pakistan or any other person in some other country.

There is sufficient justification to revolt against higher education if the faculty becomes indifferent, courses remain irrelevant, methods of instruction continue to be primitive and comprehen-

feelings as a sign that things have gone too far, and that 'no' indicates to him the existence of a boundary.

A Ciompi ring leader once said that whenever fears of hunger and prison exist there should be no room for the fear of 'Hell'. This is the seminal feeling of man and the echo of each revolt. It also creates a joy of sacrifice in him. At the same time, another view is that vanity plays mother to revolution and liberty is only a pretext.

A reform is a correction of abuses, while a revolution is a transfer of power which alters the normal flow of history and there is no revolution that is not a restoration. Ultimately, each revolution evaporates and leaves behind only the slime of a new bureaucracy. Rebels never have moro than a limited view of the enemy and generally do not see beyond their own terrain, with exceptions, of course, because Cromwell branded himself as both policeman and shepherd.

Academicians have tried to distinguish between a revolt and a revolution. Perhaps the presence of doctrine turns a revolt into a revolution. But plan, theory, doctrine and principles have emerged with the process of time and with growth in man's knowledge. Both press for certain changes and none lacks in ideas and thoughts. Malaraux felt that revolution is a successful revolt, and revolt, a revolution that failed.

Violence in one form or an other had always been the mode of revolt or revolution before Mahatma Gandhi, who in recent times, successfully introduced the idea of non-violence into resistance movements But in every circumstance all over the globe a Gandhi cannot be observed using truth and non-violence as tools for resistance. Earlier, Tolstoy had warned that every revolution by force only puts more violent means of enslavement into the hands of the persons in power.

Samuel Johnson said that it is only the reading of violent dramas of the downfall of kingdoms and empires that we do non-violently, and with peace and tranquility. It may be truc

CHAPTER 9

Preventing Campus Violence

Be it at Patna, Pant Nagar, Lucknow or Delhi, violence on the campus followed by police action generally has two features—that the element of reason has failed in an institution where it should always prevail, and secondly, that the presence of the police on a campus is a spectacle to be regretted. Indian universities must try to prevent disgraceful and violent tragic happenings. It is obvious that a government and a university must always be prepared and equipped to successfully avert such happenings.

Prevention is much better than the treatment of law and order pathologies on a campus. Absence of well conceived strategies for prevention results in excesses by both, and when the story is over it is found that students and other agitators show less respect for law and its officers and the latter show less respect to university and its members. If sore feelings are allowed to prevail, even worse situations arise in the future. The theme of this chapter is to find out milder ways to substitute for firing of bullets and serious lathi charges, by the use of water-hose or prohibiting crowd assembly close to buildings. These suggestions

sion and useful knowledge do not become students' gains. Under these circumstances students become irritant because light of learning is not there. We wrongly underestimate this phenomenon and call it indiscipline. There is no scope for a large scale indiscipline if youths' minds receives thrill and joy of useful, exciting knowledge from the community of teachers. If students are kindled by the faculty to explore knowledge under their guidance, respect, devotion and discipline will be the natural results.

Non-violent student revolt in India against the present out-of-tune curricula, primitive modes of teaching and out-of-date patterns of examinations etc., is long overdue The second area to fight against is that of social evils, political corruption and inefficiency of the bureaucracy. Adults are a part of the system and therefore they cannot undo the *status quo*. Only the 'Youth and student power' can reform and bring about desired changes.

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gives a long chase even to the crowd running away for shelter. Then the leaders of the revolt are arrested, counting of dead and injured is done and the news media inform the nation of a tragedy.

The possihle steps for preventing campus tragedies should fall in three areas—viz., preventive steps with agitators—students, karamcharis and teachers, preventive steps with police and/or police suhstitutes, and preventive steps to be adopted hy the authorities. A brief course on pitfalls of leadership techniques should he conducted for each year's hatch of student leaders, karamchari leaders and the leaders of teachers' unions. There is quite a lot to be disseminated in these areas,particularly on the need for avoiding trivial carelessness of a leader resulting in devastation. If a crowd gets violent it always means the failure of the leadership. It is a matter of faith that courses so conducted will improve the quality of union leaders and their techniques in agitations.

Regarding the prevention of excesses hy the police, many steps could be taken. It should be seen that the police force going to be posted for use on a campus is given a special training comprising campus variables. Such lectures will minimise crude police reactions when they are provoked hy juvenile recklessness and/or by evil aspects of moh psychology. Also, re-emphasis on police professionalism should he given to this squad. Normal ties and visits between the police and university authorities are also needed. Limiting the contacts to only troubled days does not generate proper appreciation of each other, instead more distrust prevails between them. Here also, it should be noted that in many cases a small mistake by the police has made things go out of hand.

Universities should also consider alternatives to the police force. The Temple University of Philadelphia has contracted since 1951 an outside private security agency with good results for maintaining peace on their campus. Industrial houses in India also engage private security agencies and are happy with the investment. Before our universities go in for having their own

should be taken as a substitute for police firing and not as additional measures of excesses.

Our universities are to be charged that while they face this tragic drama year after year, tbcy have not yet analysed scientifically and worked out properly some ways for preventing campus tragedies. This cxtraordinary lack of foretbought shows universities dereliction in their responsibilities, both to the university and the community. The UGC also has not given a comprebensive analysis to the problem nor bas it been able to find out possible steps for arresting and preventing the situations that ultimately result in tragic scenes. So far, an electronic microscope has not been employed to study the various stages through which situations move from "Vice-Chancellor Hai Hai" to *"Bullets' sound of Thai Thai"*.

The physiology of a situation of 'Hai Hai' concluding in bullets' 'Thai Thai' is *perhaps* something like this. A crowd in a procession marches to the place where an autbority occupies his office. There they sbout slogans, may have angry words with the authorities resulting in failure. Various sections of the crowd behave differently and it is seldom that tbe entire crowd becomes violent. It often happens that a section of the crowd, possibly infiltrators, has intentionally joined the procession. At the earliest opportunity tbis section resorts to violence to fail the leadership of a procession resulting in the dethronement of thc leaders. Then, with or without provocation, the crowd attacks the people of authority and/or buildings. Thcy also set fire, rcsort to brick-batting, manhandle authorities and attack wi th weapons like knives.

Then the law and order authorities are asked to intervene. First of all, the police makes every effort to induce the crowd to disperse. Sometime such warnings are rcpeated. Meanwhile, the police and/or tbe authorities are hit. "Fire" or "Lathi-Charge" orders are given. Sometimes escape routes for the the crowd may be intentionally provided and sometimes the police

of troubles before the police orders "Fire". A specific place on a campus, away from buildings, like London's Hyde Park, can be allotted for processionists to gather and for leaders to make speeches. Not more than a dozen representatives of agitators should be allowed to come near a building or enter a building for negotiations, etc. As reasoning is the source of discussion in a university, the leaders of a procession should be prohibited, with provision of punishment, if they compel the authorities to face the force of an outside crowd waiting and likely to get violent. If ordinances on these subjects are worked out during tbe days of peace a tradition would grow to utilise them for preventing deaths, injuries and rustications during an agitation. In brief, our approach should be to prevent violence instead of crushing it when it takes place.

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large scale security guards, or a separate police cadre, the possibility of deploying private security agencies on campuses should be fully explored.

Another alternative could be, as in the M.I.T. of Boston, to establish the cadre of campus police like the Military Police in Defence Services. Such a cadre should possess the delegation of the proper handling authority as the civilian police does. The universities should see that their cadre must be smart in appearance, fully educated for the campus environment, highly disciplined, extremely courteous in manner and really capable. In addition, the Judicial System of the country should post a full-time separate Magistrate holding his court on a campus of large size.

The university authorities have to go a long way in modernising themselves to meet situations of agitation and violence. A Vice-Chancellor should hold periodical meetings with local leaders of all political parties for efforts to nip in the bud agitations and tragedies. Whenever notices for a strike or for major demands are received they should he speedily analysed not only hy the concerned establishment section and other sections of the Registrar's office, hut simultaneously also by a "Study Committee" of professors and other authorities in the university for a second opinion. The second group's influence for peace-keeping on the agitators will be much greater and really effective. All Heads of Institutions in a university should from time to time meet in a seminar to discuss the elements of mob psychology, agitations, demonstrations, violence, security and police problems and procedures. Such academic exercises are not taking place on the campus. The result is isolation and inertia of thc teachers in solving these problems.

There appear to be some general steps that could be taken to prevent campus violence. One of the universities should experiment by installing a high powered water-hose system to disperse a violcnt crowd or keep on duty a fire-brigade to do so in course

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and scientific heritage, wit, wisdom and knowledge are the rightful possession of every adult educated citizen, but most of our countrymen still do not claim this inheritance. Reading is not only going through a printed page. It is an art of transmitting ideas, facts, feelings and decisions from the mind and soul of an anthor to the mind and soul of a person who reads.

Good reading involves three characteristics. The first is the ability to read with ease, and asual reading for a university graduate should be quite effortless. It should be a matter of enjoyment rather than an ordeal. The second characersitic is ability to read rapidly. Ability to skim and to pick out relevant ideas goes with the second characteristic. The third characteristic of good reading is ability to understand well. Although understanding is a broad phenomenon going differently with a poem than in the case of logical concepts, yet general understanding means the developed capacity to identify what the author's mind is trying to convey and then to relate that understanding with one's own situation, knowledge and experience.

If the university student wants that his reading should result in learning, it is necessary that reading be conducted as an inquiry. In conducting the reading as inquiry a person should gather and process information. He should raise questions and develop hypotheses while going through the pages he reads. Also, one should test and evaluate the validity of findings obtained through reading. The college must teach a person to programme his reading, select materials himself, raise questions, draw inferences and reach conclusions. If these abilities are not developed during college education it will be much better to close down such colleges.

College teachers need to see that for cultivating standard reading abilities in students, conceptual growth is engineered by students themselves, and not by teachers. For making the enquiry type of reading and learning the dominant mode of college education, it is essential that the college library and the college librarian become the heart of college education activity. If the

CHAPTER 10

Reading and Learning by Students in Colleges

Around us today is the ocean of print due to knowledge explosion. A man must swim in this printed world for his very survival. Reading as a part of daily life expands the horizons of an individual's awareness. It makes one see through numerous eyes, hear with many ears and think through abler minds. What a pity it is if a university graduate reads nothing after earning his degree. Such a person denounces his rare privileges and prefers to live in *culture of silence*. Reading as a habit is necessary in the practical management of our world—be it in an office, factory, court or any other unit. It is rightly believed that a true non-reader can only survive in a mental hospital. Our present day civilization is a paper-and-ink civilization.

Modern man consumes a mountain of print before he dies. This consumption of print is for various purposes: achieving more, organising better, amusement, enlightenment, better living, and even for escape from reality. Yet, reading, as part of life, is still very unattractive to the majority of college graduates. Our literary

2. Judging if there is ambiguity in the reasoning.
3. Judging if certain statements contradict each other.
4. Judging if a statement is a specific one.
5. Judging if the statement is actually the application of a principle.
6. Judging if an observation is reliable.
7. Judging if a conclusion follows necessarily.
8. Judging if inductive conclusion is required.
9. Judging if a problem has been identified.
10. Judging if something is an assumption.
11. Judging if a definition is adequate.
12. Judging if a statement is acceptable.

The above mentioned processes pass through the three-dimensional model of critical thinking: a logical dimension, a criterial dimension, and a pragmatic dimension. But real reading competence is much more than some techniques and processes. It is a creative action of adapting situational adjustments to emergent clues. It is a continuing quest wherein successive steps are deduced from what went before and are projected to new situations as alternatives. In brief, critical reading is the evaluation and reconstruction of the message of the author. This happens when a student evaluates the plot of the story, the style of the author and various philosophical and other aspects of the author's message in his work.

For developing skills in reading, the college students should be trained in the following:

1. Accurate interpretation of facts.
2. Grasping of the general idea.
3. Identification of sequence in ideas read.
4. Recognition of the central theme, coordinate and subordinate points of the main idea.
5. Reaching a tentative conclusion.
6. Evaluation of ideas for relevancy.
7. Recognition of the mood, tone and intention of the author.
8. Interpretation of graphic materials in the text.

library appears in operation, the college teaching will become a motivational force for promoting curiosity and for building up irresistible learning pressures. The students will then find ways to assimilate and accommodate discrepant events because each student will learn to adapt the reading-learning process to his own cognitive needs.

The basic requirement for the success of this method of reading and learning shall be the availability of able, educated and dynamic librarian(s) in college libraries having the necessary status and roles in college education. In developed countries, libraries and librarians are already sharing teaching roles even in secondary and primary education. For developing countries it is essential to bring libraries and librarians in teaching roles, at least at the college level, otherwise the college education is a failure.

Inability to conceive the proper roles of libraries and librarians at various levels of education appears to be the single largest reason for the failure of education in developing countries. Educational administrators are guided by the quality of their existing librarians and libraries. Ignoring the quality of both required for tomorrow, and thereby the need for and the purpose of self-education, largely through the efforts of the self, does not get developed in our colleges.

Reading is responding. It is a stimulus to images, memories, identification of fresh and creative thought. Reading contributes to the development of values in life. It gives reassurance and makes people achieve. It generates curiosity and zest for living, and develops compassion and courage in a person's personality. Reading, like thinking or problem solving, always occurs in some context. The cognitive processes involved in reading are those of assimilation and accommodation. Critical reading has many elements involved in it. The following twelve processes go with the act of reading:

1. Grasping the meaning of a statement.

Behind the failure of cultivating sound reading by students, lies the lecture system. The lecture system assumes that learning is only conscious and that the student mind is like a clean slate on which sense impressions and ideas should be recorded. The lecture system also presumes that mind is separated from body: emotions are divorced from intellect and the conscious mind is disassociated from the unconscious. The ritual of making students sit in a group to listen to talks, and to expect them to absorb them like a blotting paper, contradict all we know about communication theory. Even a casual look at the lecture system convinces us all, including the practising teachers, that it is shallow and fallacious. We all dishonour the lecture system. Yet, it goes on and on merely because of inertia on the part of teachers—for it is the least troublesome way of teaching. The university products take the lecture system even to schools.

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9. Solving problems through what has been read.
10. Identification of cause and effect relationships.
11. Classification of the ideas in a brief chart to visualise what has been read.

Most of the students are forced to read wrong books at the wrong time in a wrong way. This happens when a teacher lectures them about what is in a book and reduces the contents to a series of points that can be remembered. These remembered points are reproduced at the time of discussions, seminars and also in the examinations. By adopting the above method the books are emptied and students are addicted throughout their life to reduce ideas and things to summary. This method also reduces reading only to read for the distant examination and when there is no examination, no reading takes place. College students thereby fail to learn to read critically because they are taught to turn books into abstractions for examinations alone. As such most of students do not read the books and everyone reads the reviews and market notes; and all talk as if they knew the books. While there is only one way to read a book, i.e. to give one upto it, alone, coming to know in personal terms what is in the mind of the author. This kind of reading will really over-haul our college education.

The most effective way to make youth interested in good literature is to "Leave books around". Today our students are required to read a little of only some subjects. In doing so, students fail to enjoy scattered reading. Also, they fail to develop personal involvement with great authors. The student reads for purposes of examination and is controlled and guided by deadlines. There is no coming out of a student with his own ideas, convictions and experiences from an author. The college teachers need to evaluate the quality and quantity of reading done by their students. Unless studies in this field are conducted by college teachers and necessary steps taken to improve reading, the standards of higher education will continue to deteriorate in our society.

CHAPTER 11

Chaos in our Curriculum

The general educational administration deals with the management and control of educational institutions in a society for its progress and success. It is concerned with utilising human resources and energy in achieving the objectives stipulated and formulated in policies on education. The year 1969 (Knezevich) offered a sophisticated definition of educational administration in the following terms:

"(It is) a social process concerned with creating, maintaining, stimulating, controlling and unifying, formally and informally, the organised human and material energy within a unified system designed to accomplish pre-determined (educational) objectives".

There was a time when details of educational administration were studied for implementation only in primary and secondary schools. The tertiary education earlier was considered free from the essential need of specialised training in educational administration, because scholarship in universities was of a broad nature and was supposed to be capable enough to conceive of it and provide for it as a natural course. Now, the situations prevailing

a Head may have asked a few questions from teachers about their methods of instruction and of curriculum details worked out by latter. The result is that once a broad curriculum is formulated nobody in our higher education controls it, evaluates it or examines the techniques of instruction adopted to impart it. This most important area remains neglected in our higher education.

It will be useful to enumerate major trends of curriculum formation which have emerged in university and college education through research over decades. One such investigation is reported by Dressel and De Lisle in their book, *Undergraduate Curriculum Trends*, published by the American Council on Education in 1969. This study suggests the following ten types of comprehensive curriculum for university education:

1. Traditional Pattern.
2. Hourglass Curriculum.
3. Planned interruptions in general education through the undergraduate years.
4. Cooperative education plan.
5. The interim term and coordinate curriculum.
6. General education as a major concentration.
7. Divisional inter-disciplinary or inter-divisional major emphasis.
8. The experimental college programme.
9. Programme planning according to key concepts.
10. Individual programme planning.

The task of working out course requirements has also been described by these authors. For example, these authors found that basic and general education at undergraduate level needs 37% of the total curriculum. The breakdown of 37% of the total curriculum was recommended as follows:

(a) 17% Humanities
(b) 10% Social Sciences, and
(c) 10 % Natural Sciences

research, this institution does not regulate itself on the basis of research concerning its own areas of work.

For all practical purposes we believe that educational administration exhausts itself by making faculty appointments, through passing certain ordinances and orders and by taking some financial decisions. Curricula are proposed by various faculties and are approved by an academic council, but philosophy of relevant curriculum-making and modes of adopting up-to-date instructional techniques, based on psychological and scientific findings, are not included in university administration. It is the lapse in these two areas of university administration that keeps us backward in the race of higher education.

In our higher education the responsibility of formulation of curricula rests with Boards of Studies and of administration of curricula and instruction rests with the Vice-Chancellor, Head of a Department, Principal of a College and the Dean of a Faculty. But this responsibility of administering curricula remains only on paper, and it is only an individual teacher who acts on these vital processes with no accountability. There is neither any constructive assistance to him nor is there any objective method to evaluate a teacher on these central areas of higher education.

Academic years pass on and discussions on trends of curriculum formation and evaluation of its application are not held. Experimental approaches to curriculum patterns are not made. Traditional instructional methods keep going on for decades and current developments in techniques and methods of curricular instruction are neither studied by the faculty nor are they adopted. Departmental meetings, agenda of various faculties, and academic council deliberations do not even touch the issues dealing with recent research findings on these areas.

We have not heard of Vice-Chancellors talking on these research findings with their Deans and Heads of various teaching Departments. Heads of Departments are neither aware of this evaluative role of theirs, nor have they any precedence wherein

faculty and by graduates. Lack of proper interests in students and a kind of quarter-heartedness in teachers' devotion makes the higher education of a sub-standard type. A teacher is aware that what he teaches is irrelevant to study and students know that what they are learning at dictation speed will be required to be remembered and reproduced only in examinations. Even M.A. and M.Sc. courses are examination courses, and not researeh degrees. M.Phil. also has become an examination-oriented degrec.

In our higher education by and large there is only one model of delivering the formulated curriculum. This model of teaching and learning is such that a teacher tells and students listen. The format of academic work comprising curricula in universities and colleges is the so-called 'Course' which is a sub-division of a subject. This is the metric unit for teachers who teach and students who learn. The 'Paper' is almost synonymous to the term 'Course'. The 'Course' contains knowledge about intended curricula for dissemination in higher education. It is delivered by teachers and students are at the receiving end in order to pass it. The Course requires the authorisation of Board of Studies or Committee of Courses, comprising about half a dozen teachers in each university. It is then recommended by a Faculty and ultimately approved by the Academic Council as a formality.

Walter P. Metzger states that, "...though the elective system eame in and the old disciplinarian style went out, the format of the eourse persevered and prospered. One reason was that as the diseiplinary rationale for the eourse declined a new libertarian rationale for it developed". When professors were tradition-minded the eourse was a eommon heritage, when professors beeame innovative the eourse became a personal brand, an intellectual sanetuary, and a teacher's vested right. We are still at the stage of *common heritage*. It was Joseph Tussman, a Philosophy Professor at Berkeley, who doubted in mid 1960s the utility of 'Course(s)' as real help in the teaching and learning

Some other trends in curriculum formation that have recently developed are elimination of rigid items or their absorption into more relevant sections. Many requirements are made optional to individual's needs and emphasis is given on breadth. The element of individualisation is provided in numerous ways. Scope for independent study is provided on some courses and it is given the same status as teacher-directed study on certain other courses. Then, there are programmes to expand students' experience beyond classroom.

Objectives that govern curriculum formation are determined by the following conflicting issues:

1. Total, personal effective development of educands *or* deeper knowledge on areas according to tho expertise of teachers.
2. Focus on praetieal issues and problems *or* on nbstraetions leading to conceptual analysis.
3. Should curricula provide for teachers' plans to make n student an ideal scholar *or* should it be flexible, regulatable and adaptive to needs and interests of students?
4. Should maximum coherence and unity be emphasised *or* study of elements allowing students own integration through interaction and intellectual diversity be eneouraged ?

These questions need to be asked also by our teacher community and our educational administration should take steps to see that our age old approaches should not continue indefinitely. Modern Indian higher education has *exogenous* origin. Let us not ignore foreign research findings on curriculum and techniques of instruction. The Guru type of academician and his teaching methods were possible so long as knowledge was mostly (or only) deductive in its formation. In our universities the Guru type of curriculum and instruction are dominating.

Indian scholarship has so far rarely succeeded in generating a strong tradition of continued intellectual work for life, both by

courses do meet to some extent, and in some ways, the requirements of an integrated programme.

The concept of 'Institute' also emerged as an alternative to 'course' as a format for teaching a curriculum. The 'Institute' shall demand an exclusive lien on student's time for dispensation of knowledge in large blocks, serving each group according to its needs. Here, a group of three or more professors, through a suitable mechanism of review and through a solid process of accountability, will form a teaching company with limited learning liability.

One institute is followed by another well conceived institute. The concept of 'institute' can be tried by us at Master's level in some disciplines to experience its advantages over the traditional course system, which Tussman further attacks by saying that the course taught by a single professor is not sanctified by the law of nature; it is not a mandate of the charter of academic freedom; it is not triumphantly vindicated by its fruits. It is simply a customary, archaic mode of academic organisation.

The Course pattern of dispensing curricula both in quantity and quality in our universities must be changed. What is fundamental to undergraduate education should be soon identified by various scholars. Unfortunately, the faculty is not sure about its own beliefs on fundamental or general education. If we give some weight to the dictum, 'experience—not logic—is the law of life,' we may reach nearer to fundamentals. A lot of work in this area has been done by major universities like Harvard. Currently, reviews and researches are going on in this area in about a dozen major universities in the world.

Let our University Grants Commission help solve this problem by studying research findings of universities abroad on this subject. We have, unfortunately, a uniform curriculum in each university. All universities have almost uniform curricula for undergraduate and postgraduate studies, while there is

process. Tussman argued that the student served by different courses (or papers) is likely to be disserved by all, because:

1. The student buys with each fraction of this committed time an even smaller fraction of the teacher's interest. Tussman said, "No teacher is in a position to be responsible for, or effectively concerned with, the students' total educational situation. The student represents himself in fragments and not even the advising system can put him together again".
2. When about four to six, or more, teachers teach a student in an academic term or semester, they all compete for student's limited time through assignments, creating thereby increasing backlog, which a student copes with by inventing some craft. Tussman calls it, "Strategies of studentship." Burdens of numerous assignments create a series of artificial crises in a student's life, where if a student tries to pursue one thread he drops the other and thus a collection of 'coherent courses' becomes an incoherent collection. Tussman concluded that reasons for chaos lay not in the perversities of teachers and students but in the failure to develop proper organisation of teaching and learning process in higher education.

We all are flabbergasted to see that when the cream of our secondary education goes to colleges about sixty to seventy per cent students either fail or obtain a supplementary in their examinations. Tussman throws some light on this unfortunate phenomenon. The concept of an integrated programme in higher education offers the answer to the weaknesses of the 'Course' system. The integrated programme will require collective teaching. It will eliminate competitive assignment excesses. Curricula will obtain coherence. The integrated programme will modulate the total weight on students and convincing reasons will be seen, for example, for eliminating the essential course of one modern Indian language for B.A. (Pass) students. Honours

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neither a uniform student nor a uniform teacher. Our ongoing courses have no rationale hehind them.

The faculty in our universities should work out relevant criteria for inclusion of new items and for exclusion of old items from our curriculum. For, at present, we are conveying knowledge to students through isolated facts and we never help them to understand the modes of thought in a discipline (or methods of thought in general) and tbe academic ways of thinking, so as to have a liberating influence on the learners.

But the greatest problem that needs to be solved immediately is by ensuring that the primitive ways of teaching are replaced by modern methods of higber learning. It is this particular disjunction in our education in general, and the higher education in particular, which results in almost complete failure of our investments and efforts.

Details of working of universities, contents of curricula and ways of transmission of knowledge and culture are to he decided hy the professoriate of a nation. The British System gave us a certain form of higher education which Indian scholarship has neither modulated nor properly screened. Local needs and changes needed have not been provided for by our professoriate. The issue of 'Relevance' of university curriculum has not been successfully encountered hy the Indian scholar.

There is anotber important mission for our professors to perform. The balance between Humanities, Sciences and Social Sciences for delivery to educands has not yet been hit. Nor has applicability of knowledge gained been properly examined and duly provided for. University study in our country still remains an abstract entity. Indian scholarship has to resolve the issues of relevance, practicability, numbers, costs, and needs of the nation.

CHAPTER 12

UGC Attempt to Reform Curriculum

The Education Commission (1964-66) conceived and recommended the following ideas for reorganising our University Curriculum for first degree courses:

1. Selection of subjects for undergraduate studies should not be linked rigidly with subjects learnt in secondary school.
2. Greater flexibility in allowing selection and combination of subjects.
3. Both general courses and special courses should be provided as sets for option by students.
4. Inter-disciplinary courses should be worked out and provided for.
5. The courses should comprise work experience and be related to Indian life, needs and aspirations and be able to achieve national goals.

The University Grants Commission obviously took the above points as objectives for launching action in the area of curriculum reforms. The UGC in its wisdom believed that under the criteria of relevance and flexibility in curricula there is need for

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the recommendations, so arrived at, could have been brought before the UGC panel for final approval containing the details of implementation. As academic treatment to issues was not given and the seminal task was disposed of in an administrative style, the result was bound to be a chaos.

Let us describe here, for example, how the matter of undergraduate curriculum reform was recently treated at Harvard. In 1974, Dean Rosovsky asked for major review of goals and strategies of undergraduate education. Seven task forces studied various aspects. In 1977, after about three years of deep study and research, the faculty discussed the report of the task force on 'core curriculum' with all possible details arrived at after years of team research. Work of this depth and value cannot be done by our UGC panel through only air dashes to Delhi, and by ignoring the research and study over years by a devoted task-force.

The result of fallacious conclusions and recommendations, made in the absence of research, on this very vital area of restructuring of undergraduate courses was that the nation had to wait for pressing reforms in this direction. When the hollow proposals of the University Grants Commission on restructuring of courses were placed as *item no.* 2 *in the Conference of Indian Vice-Chancellors in* 1975, that is after about seven years of the Education Commission's reporting, the consequence was the rejection through the following resolution adopted by the *Conference of Vice-Chancellors in* 1975:

"Item No. 2: Restructuring of Courses—Their Relevance to Development-Rural Orientation.

There is perhaps insufficient articulation of the purpose underlying the UGC programme of restructuring of courses. If the purpose is to give "instruction of skills suitable to play a part in the general division of labour", this is unlikely to be achieved by replacing one of the three traditional subjects by a subject of

combining 'academic component' with 'applied component' and work experience, particularly as per the needs of rural India. This interpretation was in idea plane. Then, the UGC further believed that for implementation what was needed was a 'good deal of integration' and 'broad based reframing of courses' so as to provide for practical and rural orientation. If the recommendations of the Education Commission are read again in view of the thinking by and the proposed action of the UGC, it will be clear that the UGC panel failed to take the five recommendations as the five distinct recommendations and then made a mess by amalgamating 'relevance' and 'flexibility' with *compound combining* of 'academic component' and 'applied component' and by further *complex mixing* of the 'rural context'. The result was a strange hybrid, a great fallacy and the worst academic confusion.

Such a result is unavoidable if five distinct characteristics are reduced and merged into just two multiple sets; requiring only one action. Again, it was not proper for the UGC panel to advise launching of postgraduate (Post B.A./B.Sc.) diploma courses or short-term evening courses as a purely interim measure to provide for meeting the objectives of restructuring of courses. As per its wont, the UGC panel did not hesitate to suggest organisation of seminars, workshops and orientation courses in the absence of the study of research findings on concerned issues elsewhere. As the last item of its agenda, the UGC here also concluded with the promise of granting financial assistance. With these the job of bureaucracy was over without making any academic impact whatsoever.

Perhaps, the proper method to be adopted by the UGC was to assign these five ideas of the Education Commission (1964-66) for research and detailed recommendations by about twenty professors, looking after their own fields. These researchers should have been asked to prepare some models in black and white. Such models could have been studied and commented upon in depth by numerous colleagues in the same subject. Then,

integrated curricula not yet clear to Indian scholarship ? Do we not know as to what local variations will be needed to maintain Indian needs and culture ? Shall our universities continue to have ten to fifteen lines as syllabus for a course or paper, and prescribe some books—some out of date and some new ones ? How much liberty in the detailed designing of curricula can be given to the teaching teacher and also to graduate students? How much responsibility should continue to rest with the primitive 'Board of Studies' ? Will the element of individualisation in curriculum not enter Indian Higher Education ? How shall we induct new research in teaching and learning in our curricula ? Will the demands of systems analysis and accountability continue to get defeated by the traditional power of the faculty ? How long will the University be able to hold on with the traditional power ? How far will a teacher trained to be specialist in a minor area or a discipline be able to administer general educational reforms in seminal areas of curriculum and instruction? How long will society take to demolish "low energy process" Universities if they continue to be primitive in curricula and instruction ?

After 1975, the University Grants Commission has made remarkable progress, in just abont three years, by revisiog subject eourses for undergradoate and master's studies. About 33 UGC workshops were condocted uoder various disciplines all over the country to identify relevance in courses and to up-date them. The new recommendations of varioos snbject panels are uoder eonsideration of uoiversities At the uodergradoate level one conrse of *application-nature*, not necessarily job oriented, as stipulated earlier, has been provided for experiment in selected colleges of India. The Commission wisely did not implement it in all the universities at one stroke. The UGC has also iotroduced, based on its earlier experience of 'General Educatioo Programme' aod the experience of the 'Harvard Group', the most welcome concept of 'Fonndation Courses' to educate a full man. The UGC panel now has worked out a

"practical" utility. If tbe purpose is to introduce the student through the third subject to merely an "orientation" of the application of some theoretical aspects of the other two traditional subjects, the result might well be a first degree course which, while emasculating the broad scope and depth of "liberal education", will not generate any worthwhile compensatory skills of a practical nature. The danger in this attempt is that the existing orthodoxy might be replaced by another orthodoxy, namely, two "theory" subjects and one "practical" subject, resulting in the teaching of each, as at present, with the sole purpose of passing the examination. "Relevance", it should be emphasised, cannot be achieved by substituting the study of an existing subject by a more practical one; relevance has to permeate teaching in every subject and at every level; it is more a question of examination and development of principles in every subject, development of skills in problem solving and transformation of principles and abstractions into practical application in tbe environment, whether rural and urban areas and their implications for teaching technologies and learning methodology. From this point of view, the distinction between rural and urban orientation is a relative one and should not be pushed to the point of an absolute distinction. It should be emphasised that all experiments of "restructuring" will be meaningful only when there is sufficient clarification both of the general purpose of undergraduate education and of "restructuring" of courses at this level".

It is essential that like Harvard, we appoint some task force to undertake global research on the issues, with emphasis on elements of local variation, and to come out with full details of contents and of implementation of reforms in our higher education. Thc waiting will be worth it. Launching of some thing hurriedly concluded will be a complete waste of efforts and of our limited resources. There is no use in having just a superficial report on the seminal tbemes of higher education.

For resolving this complicated issue we shall have to ask the following questions. Are concepts of general, specialised and

CHAPTER 13

Operation of Teaching

It is the kind of teaching that makes education at all levels either a success or a failure. In 1971-72 our country had 27, 86,462 teachers at all levels out of which 16,513 teachers were in universities; 815 in research institutions; 1,16,435 were teaching in colleges for general education; and 72,332 teachers were engaged in professional education. Most of these teachers are teaching by telling and students are learning by listening. Long ago, William Arthur Ward classified teachers by what they do while teaching in the following four categories:

The mediocre teacher tells;
The good teacher explains;
The superior teacher demonstrates;
The greater teacher inspires.

The right kind of teaching should be determined keeping in view the ways of comprehension by students. On this issue an ancient proverb says:

I hear, and I forget;
I see, and I remember;
I do, and I understand.

model of 'Foundation Course' as well for study and implementation by our universities. The famous 'Policy Frame' of the UGC generated some thought provoking discussion in 1978 when various universities discussed it. Unfortunately, the UGC can give out only that which the professoriate and peers of the nation contribute. It is the faculty which ultimately implements projects at its end—successfully or otherwise. The subject panels of UGC and teachers in general, should always remember 'Tussman warning' while preparing courses and while delivering them.

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many colleges. There are colleges where a teacher only dictates notes, to be remembered and reproduced in examinations. In most of the colleges the only topics on which discussions go on are either on non-academic issues between students as friends, or one directed by an agitator. It can be concluded that versatility in ways of modern methods of higher learning is not the characteristic of many university teachers.

Our society should be proud of the depth of scholarship possessed by at least some of our brilliant professors in each college and in each university. But ignorance of the most of the faculty, including many brilliant professors, of recent advances in learning processes, is a matter of shame for higher education. Most of us while teaching endeavour to develop the memorising and thinking abilities of our students. Teaching a particular curriculum with emphasis on examination questions means that we largely contribute towards memorization of factual knowledge, to be crammed and ultimately reproduced in examinations. For about fifty minutes of lecturing in a class, even by the most motivated professor, excelling in the art of animating his lecture, it appears impossible to hold the attention of each student. After about fifteen minutes of lecturing by a teacher, a parade of irrelevant issues enter into a student's mind and divert his attention from what a professor is arguing. The *reason is* that the student is in passive role because there is no active inter-communication between the educator and the educands. Radio and Television have taught us that the optimum span of attention of an audience to continuous exposition should be about fifteen to twenty minutes.

According to Joseph Katz, the *Developmental Theory* concerned with student learning at the college level has now reached a fair degree of sophistication. Here are some of the conclusions the *theory* has arrived at:

1. Students learn best if their studies connect with their motivations and their aspirations. These would include

For improving our higher education the most important task is to make our teachers improve the ways of their teaching. But these highly placed leaders, which university and college faculty certainly are, have not generated a movement to examine critically and objectively better ways of teaching. It is generally believed that a good teacher is one who knows the subject thoroughly. In fact, this can never be disputed. But this characteristic entitles him just to start as a teacher. How to be actually teaching effectively is a matter of educational methods connected with the abilities of educands in the teaching-learning process. Planning of courses and methods of teaching are taken as the individual affairs of a teacher, not requiring group discussion and other joint efforts.

Like a teacher, politicians and practitioners of law also earn their living through speaking. These people take great care in making the best possible use of their voice. But teachers in general, with secured salaries, do not bother much about it while speaking in a classroom. If self-employed people in law, politics, sales, etc. find weaknesses in the effectiveness of their personality and presentation, they do take steps to improve their speaking–resonance of voice and its modulation with pause, if necessary. They develop better enunciation techniques and are forced to have logical sequencing of points. They also develop skills for pitching the voice for getting good and proper reception. Many business houses teach their salesmen in these abilities. But learning the details of speaking is not done in an organised way by teachers in higher education.

In our teaching work a particular method exists and all teachers, over generations, adopted it unquestioningly. It is the lecture method which is ruling now. Before the lecture method, the fashion of teaching was the "explication of the text", used largely in oriental and classical learning. The techniques of discussion and clarification through tutorial discussions, experiments in sciences and field projects in Social Sciences are not known in

9. But if cognitive learning—that is, the intellectual mastery of information, method and theory—is tied to personal development, both learning and development occur. For example, during this period in a person's life, a student is generally driven by sexual anxieties and needs. Properly guided, these drives can serve as a vehicle to lead students to a better understanding of the physiology of the body, as well as the social nexus and the general process of psychological maturation of which their emotional and social lives are a part.

In support of the developmental perspective, one could cite study after study indicating that the impact of the professor in the classroom is hardly proportionate to the expenditure of effort, people, time, and money.

While memorization is the least of thinking, even then let us see as how best to memorize. Memory retention requires that the topic being learned is put to some use. If one derives greater satisfaction in learning an entity the greater will be the chances of memorization. Periodical commendation is the element of satisfaction of students. Giving a new knowledge, the use of variety of applications helps most in memorization. The way we teach our classes provides none of these constituents of memorization.

Many universities abroad adopt teaching techniques which make students learn to identify problems and to solve them. They believe that in defining a problem half of the solution is obtained. Case studies are such a method. For developing skills in critical thinking by students, the teachers need to make their students observe keenly; to select, collate and analyse data skilfully; and to synthesise results competently. These methods are common in teaching of Sciences and that they can be applied both in Social Sciences and Humanities is what we have learned in last thirty years. In simple terms, if our university students spend least time in listening and more time in speaking and writing,

a sense of competence, a satisfactory life style, and a feeling of personal and occupational identity.

2. There must be self-direction in the student's process of learning and he or she must have some autonomous participation in the planning and execution of what is to be learned.
3. The student's learning must issue in a product that has its own self-contained integrity, and it must be more than make-believe or a testing hurdle.
4. The student's work must be useful to himself and, wherever possible, useful to others. This contrasts with situations in which the primary conduct for the student is a grade, which may be an ornament on his record and a ticket to further schooling, but has few other consequences.
5. Learning is facilitated when students learn in groups oriented to a common task.
6. The professor or other adults must be interested in the student's work, and convey this through relevant encouragement and honest evaluation.
7. The professor must treat the subject matter in an inquiring mood, and must be interested in the subject matter he or she is teaching. Hence, students always rate the "enthusiasm" of a teacher as an important incentive to their own learning.
8. There must be no neglect of other developmental challenges that students face during their passage through college, such as the achievement of self-esteem, of competence, and of acceptance by others. To the extent that the student fails to achieve these personal goals, he tends to lose his willingness to learn. The student then resorts to "examination complicity", i.e. temporarily memorizing and then quickly forgetting after the examination is over.

teacher himself, who cannot visualise seminally and exhaustively the flow of his teaching quantum and quality during a semester or a term. Presenting of a detailed synopsis on each major item of curriculum prescribed gives a teacher proper grip on the academic details of a course. The loss of students in not getting detailed teachers' synopses is enormous, keeping them confused and alienated from the course for ever. In such a condition lectures become loose, and as students have no pre-knowledge of major themes, such teachings fall on practically deaf ears.

It is much easier to trace this most serious pathology in learning and teaching tasks in our higher education than to find ways to cure this pathology, which keeps our higher education primitive. But we have about 200,000 university and college teachers in our country and under each discipline, out of the minimum of about 1000 teachers, at least a dozen will be the products of foreign universities, where they studied courses on the basis of teachers' synopses of courses. The various subject committees of the University Grants Commission can take up the academic task of producing a sample teacher's plan and synopses which can work as a guide to our teachers in each discipline. Also, the University Grants Commission can request some foreign universities to send a complete set of teachers' synopses in use there and such documents could be examined for developing samples for use in India. This type of Centre should be established within the UGC buildings, where peers regularly come for business meetings. In fact, such developments did not take place in our higher education because our senior professors and highly placed educational administrators did not conceive these details of modernity in university teaching. Aspects and skills of teaching are neither encroached upon nor discussed in our universities. I have not heard about them in Academic Council meetings over two decades. It is considered a sacrosanct item, an issue of personal life of a teacher—like one's bank balance or evening life, it is forbidden to talk about it.

the learning standards will improve. It is possible through discussion method of teaching, work in labbratory or field project, or through tutorial method with assigned papers. Such methods of teaching will make educands active participants in the learning process.

That 'Group processes' facilitate learning, is another major postulate developed in recent times. It believes that self-expression develops better through interaction with other students. The end product of group thinking surpasses the abilities even of an instructor. The teacher needs to control the class arrangement and group leaders. The teacher should generate ready inter-communication among students in a horseshoe type of seating arrangement. A teacher may desire to be directive or permissive or find a compromise between these two types of group discussions by regulating the course of discussions. The objective should be to make each student a researcher type, a habit to continue even after the formal education is over. The college faculty must realise that teaching in higher education requires both knowledge as well as skills. For developing proper skills the only way is that teachers themselves discuss the task. University administrators can help in developing modern teaching skills only through diplomatic and persuasive methods.

In Indian higher education there exists a serious gap between the curriculum, developed by a board of study of a course or paper which runs into about fifteen printed lines, and the actual teaching that is conducted by teachers and comprehended by students throughout a year. There is no specific teacher's plan and synopsis cyclostyled and distributed to students at the start of an academic year. The result is that the contours of teaching on a course remain a matter of guess, are unpredictable, and get vaguely regulated and delivered as a teacher may wish on the spot. Can we say: depending on weather conditions or political scenes? Absence of detailed synopsis containing basic definitions, scope, major references and relevant common assignments harm more

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That 'Group processes' facilitate learning, is another major postulate developed in recent times. It believes that self-expression develops better through interaction with other students. The end product of group thinking surpasses the abilities even of an instructor. The teacher needs to control the class arrangement and group leaders. The teacher should generate ready inter-communication among students in a horseshoe type of seating arrangement. A teacher may desire to be directive or permissive or find a compromise between these two types of group discussions by regulating the course of discussions. The objective should be to make each student a researcher type, a habit to continue even after the formal education is over. The college faculty must realise that teaching in higher education requires both knowledge as well as skills. For developing proper skills the only way is that teachers themselves discuss the task. University administrators can help in developing modern teaching skills only through diplomatic and persuasive methods.

In Indian higher education there exists a serious gap between the curriculum, developed by a board of study of a course or paper which runs into about fifteen printed lines, and the actual teaching that is conducted by teachers and comprehended by students throughout a year. There is no specific teacher's plan and synopsis cyclostyled and distributed to students at the start of an academic year. The result is that the contours of teaching on a course remain a matter of guess, are unpredictable, and get vaguely regulated and delivered as a teacher may wish on the spot. Can we say: depending on weather conditions or political scenes? Absence of detailed synopsis containing basic definitions, scope, major references and relevant common assignments harm more

teacher issues communiques, nnd makes deposits'. If 'Problem posing' edueation does nlot tnke plnee, then a person in life is not produetive. There are no ehnnees of ereativity nrising in him. Henee, all work throughout life is without relevnnt knowledge. The result of all these is that the proeess of transformation is bloeked in our soeiety.

University instruetion for long hnd only two instruetional teehniques—leeture method, and seminar method. Knowledge of learning proeesses had n multi-dimensional growth during the last thirty years. Both the leeture system and seminar have lost their eomplete monopoly in view of the following faetors:

(a) Need for individualisation in the learning proeess.
(b) Value of modularization in the learning proeess.
(e) Availability of various instruetional media in the learning proeess.

Individualisation in instruetion demands the provision of time units as per level and rate of neeomplishment by students; properly worked out eurrieular objeetives in an area; sound ways of assessing in view of the objeetives; instruetional materials to provide plurality of ways for aehieving an objeetive; individual learning plans; and deviees for feedback for evaluation of each element. Modularization demands breaking up of complex subject areas into smaller units, and modules so formed are required to suit the interests and needs ot students. Designing of modules is done jointly by a teacher and a student. It is based upon the postulates that learning should be based on previous learning and should motivate the learner. It also believes that learning takes place in a variety of ways, where methods of telling and listening are least effective.

A handbook of synopses provided by the teacher works as basic resource. But in our telling and learning system the teacher generally provides nothing except verbal sounds. Instructional media in our higher education need to comprise all possible types—audio, visual, audio-visual and other non-print materials. We have in fact not marched at all in this direction.

The absence of proper organisation of teaching work is the single largest reason in the failure of our investments in higher education. There are just some brilliant teachers who, as a matter of individual excellence, teach well but the majority of them fail to do so not because of any pre-determined intentions for doing so, but because they have no concrete knowledge about modernising their teaching work on the basis of research findings in teaching techniques and details of comprehension, both in application in many foreign universities. The kind of teaching in our Higher education can be compared to a situation in elementary education. Once an Inspector of Schools visited a school in a village. He was in a classroom talking to about 20 students. Pointing towards the classroom blackboard, he inquired, "What is this?" The students replied, "Black Board". "What for this Black Board is used" asked the Inspector of Schools. The students answered, "The Black Board is used, for drying up the dhoti (5 yards bottom dress) of the teacher." This example is quoted to emphasize that even in higher education numerous tools and resources me underused as in elementary and secondary education. The present Minister of Education is going to lnunch the *panchsheel* (five principles) of education including learning, work, service, games and character. Unless full measures for adopting proper teaching ways and skills are taken at all levels, no principles and changes of pattern are going to help.

In our higher education the act of teaching means largely narration by a teacher. Narration at all levels and always; where teachers tell and students listen to them in classrooms. Through such a kind of teaching a student's mind becomes a kind of a container to be filled by what the teacher tells. Union of action and reflection is missing in our colleges and universities. Critical study with dialogic relation between teachers and taught is not there. 'Verbalism' reigns supreme and "activism" does not even get nearer the periphery. It is like the banking concept applied in education wherein, 'Instead of communication, the

Objectives of evaluating teaching techniques in higher education are to improve methods of instruction by providing feedback to teachers, curriculum planners and administrators; to evaluate faculty for promotions etc. and to inform and educate the students and the society. The most common form is to use questionnaires to be filled in by graduating students. Such a useful course is not adopted by us and the result is that we remain ignorant about the problems in instruction. Ignorance of problems of instruction, the key issue, means non-awareness of all educational problems. Once we do not know the problems, the question of working out solutions and improvements does not arise. The University Courts *or* University Senates, having a large representation of graduate constituency, should promote the survey system of university instructions by circulating a questionnaire blank to each graduating student each year. The questionnaire returned, duly filled, should be analysed; and results and proposed remedies be reported in the annual meetings of the University Courts/Senates as the case be.

The instructional environment of a University or a College can be evaluated by following characteristics:

1. Selectivity (Number of students who apply for admission divided by the number admitted).
2. Size (Total full-time enrolment).
3. Realistic Orientation (percentage of degrees in applied fields like Agriculture, Engineering, etc.).
4. Scientific Orientation (percentage of degrees in Natural Sciences).
5. Social Orientation (percentage of degrees in Social Sciences).
6. Humanities (percentage of degrees in subjects falling under Humanities).

The paper—Astin, A. and Holland, J. L. "The Environment Assessment Technique: A way to measure College Environment,"

Objective ways of evaluating curriculum and instruction techniques have been developed on the sub-areas of instructional context, instruction itself, and student outcome. Cost, efficiency and effectiveness are measured for evaluating the curriculum. The book—*Handbook of College and University Administration,* ed. by A.S. Harris—proposes following comprehensive formula for evaluating curriculum:

Cost of Instruction=(NL/CF) S (1+O)

The variables are:

1. Number of students
   (N) Times semester student load in credit hours
   (L) Equals total student credit hours.
2. Average class size
   (C) Times average semester credit hours taught by teachers.
   (F) Equals average student credit hours taught by each teacher.
3. Total semester student credit hours divided by average credit hours taught by teachers equals the number of teachers.
4. Number of teachers *times* average academic year salary of teacher
   (S) Equals total teacher salary.
5. Total year's expenditure less teacher's salaries equals over-head on teacher's salaries.
6. Overhead expressed as a relative of salary equals overhead divided by salaries (O) here stands for all costs other than salaries.
7. Thus: (NL/CF) S (1+O)=Cost of Instruction.

Our educational administration need to evolve some ways, not necessarily the above mentioned formula, to evaluate our affairs and expenses which are second only to the defence budget of our country.

one subject and mostly neglect other subjects, which are known as subsidiary subjects. While the students opting for pass courses have wider and different subject areas for study, the atmosphere is such that all concerned treat such students inferior in quality requiring inferior teaching. Even the course itself becomes an inferior adventure. Hence, all ranks in university administration, teachers, parents and students concerned develop the attitude that high quantum of reading and efforts are not required in pass courses. Such pass courses, with four subjects if done properly, should require greater efforts from its students and teachers; and such broad courses will be more useful to educands and to society. It is unfortunate that about 80 per cent of student population, going for the useful and broader studies in pass courses, is put to humiliation right from the day one seeks admission and the 20 per cent honours students unnecessarily enjoy the status of false superiority in university life, while the common fate of both the streams is unemployment.

It has not been scientifically studied so far as to which course is really greater in quantum, requiring better studies. Many professors believe that quantum of pass courses is greater, requiring more intellectual efforts on the part of a student than that of honours courses. But the faculty, comprising largely narrow subject specialists, keeps the tracks of narrow specialisation busy. One may examine if the life of an educated person is worth living with interest and ability only in one subject, like Physics or Economics or Botany or Zoology and so on. The boredom inflicted through deeper studies on a narrow area makes a person non-learner during the rest of life. Nobody can live an exciting life by devoting exclusively, for example, on *flora* or *fauna*.

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Journal of Educational Psychology, 52, 1961: 305–317—discusses the ways of evaluating instructions in higher education.

At least some individual or agency in India needs to examine the details of evaluating curricula and techniques of instruction in our higher education and prescribe our own standards in view of our conditions and development. At the University Grants Commission, the Secretariat needs to take up these studies with the help of experts.

The University Calendar, period of learning sessions, is very much dependent on the types of curricula and techniques of instruction. We adopted the semester system of calendar but curriculum and instruction technique were not completely in tune with semester techniques. The quarter-system of calendar is gaining currency in many universities in view of newer curricula and modern instruction techniques. Another calendar system in use is known as 4–1–4 plan, and the fourth calendar in practice is the old 'trimester stystem'. We need to examine the advantages and disadvantages of these calendars along with their relevant pattern of curricula and instruction techniques, and our local conditions and needs.

Analysing the dangers coming in the way of innovation, Niblett has rightly stated that in the mid 1970s innovation in higher education is endangered not only by lack of money but by a deeper deficiency—the lack of unifying philosophy capable of drawing together the innovative efforts. While such efforts may be successful in the hands of individual groups of enthusiasts, they might offer greater promise if they sprang purposefully from widespread confidence in a coherent future for the world. The world of learning awaits renewal of that mood of confidence.

Some Universities in India are very much proud of their having two streams viz., 'Honours' and 'Pass Courses' in undergraduate studies. They are running such courses since the last many years. The students going for pass courses have to study four subjects while the honours students specialise just in

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2. To reduce formal instruction to the minimum so as to provide time to students for reference work and self-study.
3. To adopt new teaching technology to create the so-called pre-condition for changing syllabi and examination methods.
4. To help college teachers in developing ways for inviting student participation in discussion, seminar, project work and in the teaching process as well.
5. To assist teachers to develop special programmes for gifted students.
6. To equip teachers with the know-how of cultivating in an average student the abilities of reasoning, logic and spirit of enquiry.

The COSIP project included the provision of facility to the teachers of selected colleges to participate in refresher courses conducted by university departments. It also included provisions for improving laboratory equipment and provision of a kit of materials for use in demonstration, as a method, in teaching and learning process. The Commission believed that through these ways it will be possible to revise old courses and new teaching methods will be adopted to discard the old rotten ones. The COSIP project also conceived the need for developing workshop facilities needed to design and to fabricate equipment for supporting designed instructional programmes. The scheme provided for inter-departmental and inter-collegiate activities for uplifting science education.

As the COSIP programme based on colleges is about nine years old, it is essential to have a comprehensive document, to be produced by UGC or by the experts who authored or conducted COSIP, containing the following:

1. Comprehensive enumeration of new methods of instruction in class and laboratory that the college teachers were told as per the first objective of COSIP. How far these methods

CHAPTER 14

UGC Adventure for Quality in Instruction

For promoting qualitative improvements in instruction and learning process, the University Grants Commission launched two major programmes viz., College Science Improvement Programme (COSIP) since 1971-72 and College Humanities and Social Sciences Improvement Programme (COHSIP) during the Fifth Plan. Under these two major heads the schemes were covered through the following two sub-programmes:

1. Picking up of a college and to cover the entire faculty for their growth in quality of instruction and learning process.
2. Picking up of a University department in a subject to work as the leader for developing the faculty of the selected subject in all colleges affiliated with that University.

The scope of activities under the selective colleges centred programme for (COSIP) covered the following items:

1. To introduce new methods of instruction in class and laboratory.

A well-written manual, or UGC report, containing answers to the above mentioned queries is essential. In the absence of such an evaluation it was not appropriate on the part of Indian Vice-Chancellors to endorse COSIP and COHSIP as they actually did in 1975 Conference of Indian Vice-Chancellors, organised by the Ministry of Education.

The University Leadership (ULP) Unit of COSIP also needs to be evaluated comprehensively. The ULP under COSIP was related to the following:

1. Development of courses of study and curricula including writing of suitable books, teachers' guides and laboratory manuals.

2. Equiping college laboratories with necessary apparatus for practicals and demonstrations.

3. Bringing up of college libraries to the level required to support the academic instructional programmes.

4. Training of teachers for the colleges by running short-term institutes, refresher courses or academic year institutes, whereby all the teachers in the subject concerned in the affiliated colleges could be trained to adopt new materials within a course of two or three years.

5. To encourage teachers from the colleges having research aptitude to participate actively in research programmes undertaken in the university department. Such teachers may be given suitable short-term research fellowships on the condition that they would ultimately return to their college departments.

6. Development of educational materials in general, including audio-visual aids.

We also need a comprehensive accounting of achievements under each head and sub-head. A document on these aspects will help higher education in numerous ways.

On the general lines of COSIP, the UGC launched COHSIP during the Fifth plan. The essence of guidelines prescribed by

were applied by the teachers concerned? What were the results of application of these methods?

2. As per the second objective of COSIP, we need to know, how periods of formal instruction were reduced by teachers of selected colleges to promote reference work and self-study? What quantity of self-study was done as a result of it?

3. As per the third major objective, what kinds of new teaching techniques were created by COSIP and to what extent they were able to change syllabi and examination methods, as intended?

4. As visualised, what ways were shared with teachers of selected colleges for inviting student participation in discussion, seminar, project work and in teaching process? How far these new ways were adopted by the teachers of selected colleges? What was the impact of the new methods in learning process by students?

5. What are the details of developing special programmes for gifted students? Were such programmes actually developed? What was the impact on gifted students?

6. What types of 'know-how' were shared, as was the objective of COSIP, with teachers of selected colleges, for cultivating the abilities of reasoning, logic and spirit of enquiry in average students? How far the COSIP teachers succeeded and what was the impact on students?

7. What laboratory equipment were developed?

8. What materials were given for use in the demonstration method of teaching?

9. What workshop facilities were developed in selected colleges and what kinds of equipment were designed and fabricated for new instructional programmes, ?

10. What kinds of inter-departmental and inter-collegiate activities were conducted for improving science education?

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10. What kinds of inter-departmental and inter-collegiate activities were conducted for improving science education?

equipment and duplicating facilities. The colleges should try to train 4 or 5 teachers in the operation of audio-visual aids.

4. *Tutorials and Seminars*: Tutorials and seminars, to be meaningful and productive, will have to be organised on an institutional basis. Every student should know in advance the number of tutorials he has to attend in a course. The student should also know how he has been assessed. Colleges could institute a certificate of their own which would include an account of cumulative records of the students in various subjects. This certificate should be issued to every student at the time of his leaving the college.

The programme of teaching in every course should be planned and announced to the students at the beginning of each term. The list of topics to be covered either by lectures or by tutorials may be indicated and synopsis of each lecture, including comprehensive and graded bibliographical notes, may be cyclostyled and circulated amongst the students well in advance of the actual teaching work. These notes will have to be revised periodically. Adequate clerical and stenographic assistance will have to be provided to the teachers for this purpose. Assistance in this behalf could be provided by students, who should be paid for the work done by them.

Special provision of remedial teaching may have to be undertaken to enable the students not only to improve their capacity for comprehension and expression in the language concerned, but also in understanding courses in other subjects.

The teachers in the colleges do not always have an idea of what a tutorial is and what its objective should be. A suggestion was made that it would be advantageous to have a workshop on the method of operating the tutorial system.

5. *Practical Orientation to the Courses*: It should be possible to give practical orientation to some courses or to at least some parts of some courses. The teachers should prepare materials

UGC under College Humanities and Social Sciences Improvement Programme (COHSIP) was the following:

(As tbe Scheme has heen in operation since the last five years, wbile going tbrough tbe ohjectives etc., one may also like to assess as to how much has actually heen achieved, during 1974-78, under each of the following eight areas.)

1. *Objectives of COHSIP*: To strengthen and enrich the teacbing, learning and examination processes in the Humanities and Social Sciences at the undergraduate level in the Colleges. To provide opportunities for change and innovations within the framework of the existing curriculum. Enrichment of the curriculum and experimentation should ultimately provide a framework for modernising and updating the syllahus in cooperation with the academic and other hodies of the universities. This programme together with COSIP should eventually help the colleges toward autonomous status within the university system in the country.

2. *Maximum Utilisation of Existing Resources*: No worthwhile quality programme can he implemented in the colleges unless a deliberate and concerted effort is made to make the maximum and best use of availahle resources, particularly lihrary facilities which are central to the improvement of teaching and learning in the Humanities and Social Sciences. The library hours should he extended to at least 12 hours a day. An attempt should be made to see that books and journals already available in the library are used to the best advantage hoth by teachers and students.

It should be possible for all colleges to so devise the college programme that maximum use is made of the space already available in the colleges.

3. *Optimum use of Common Facilities*: Physical and material facilities already available in the colleges should be used by all the departments of the colleges, particularly the audio-visual

the general frame-work recommended by the Principals. For instance, while it may be necessary for some colleges to invite guest lecturers for short periods, other colleges may find it more profitable to invite guest teachers for extended periods.

About five years of COHSIP experience is over. The UGC has the responsibility of evaluating this programme. The results of comprehensive analytical evaluation should be published annually or as a report on COHSIP for wider distribution and study.

The schemes of COSIP and COHSIP are basically projects on improving instruction. These are adventures for modernising college and university teaching. For both COSIP and COHSIP the focus was the college and its teachers. The university teachers should have been included because teaching in university departments is also of a primitive and traditional nature. This will be realised only after studying the research and innovations on teaching in foreign universities. These two schemes committed the mistake of taking for granted that university instruction is superior and up-to-date, which it is not. Also, the better way was to develop printed manuals on various areas and blue-prints of various materials and equipment for COSIP and COHSIP before launching them through the verbal plane of talks between expert teachers communicating to teachers of selected colleges. Again, as teachers of selected colleges were not having comprehensive manuals with them, in return they too had to depend on recollections, on the verbal plane, to deliver the benefits to their students. The UGC projects like COSIP and COHSIP should have been launched with comprehensive preparations, including technique and subject manuals with charts and diagrams, and with enumeration of various techniques for improvement, more so because the clientele was the teachers of higher education. We need some academic materials even if we approach illiterates for literacy programmes. Also, it was desirable to integrate the UGC Faculty Development Project with COSIP and COHSIP.

for practical orientation courses, teach them accordingly and help students to better comprehend their courses, ultimately providing the groundwork for reforming the university syllabus.

6. *Internal Assessment*: The importance which a university attaches to internal assessment will ultimately determine the success of the internal assessment and tutorial system. But even so, the Principals agreed that internal assessment in connection with the certificates to be issued by the colleges should stimulate the students and teachers to do better work. For internal assessment it will be necessary to employ a variety of questions e.g., short answer questions, multiple choice questions, true or false questions and short examinations without previous warning. It should be possible for every department to prepare a question bank in each subject and this could be supplemented and refined by cross references with the question banks prepared by other colleges/universities under this scheme.

7. *Improvements of Reading Habits*: Special efforts will have to be made to improve the reading habits of students. For this purpose it may be necessary to provide to the students: (a) notes on bibliographies; (b) duplicated periodical literature, and (c) regional language translations of materials that appear in English periodicals. The teachers should arrange seminars where their own students together with postgraduate and research scholars in and around the college could periodically review new books in the subject.

All the students should be oriented to the college library and instructed in the use of the library services. It is also important that the students know right from the beginning how to locate reading materials in the library, how to consult dictionaries and encyclopaedias and how to collect references for topics of their tutorials.

8. *Identification of Priorities*: Each college will have to identify its own priorities in the light of the guidelines mentioned above. The programme should have flexibility within

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Even now, the UGC can review these projects to make comprehensively a whole project with necessary vital supporting literature.

In order to develop quality and comprehensiveness in UGC plans and programmes it may be examined to have on contract some devoted subject specialists on specific assignments. Such persons can work on UGC missions on leave of absence from their universities. It is not a part-time work to prepare detailed blue-prints of important schemes for innovation. The peers among scholars having numerous responsibilities cannot hurriedly be summoned to Delhi to work out details of vital schemes in the absence of intimate study of international research literature as, for example, improvement of instruction required under COSIP and COHSIP. The detailed work on such areas should be assigned to full-time scholar-students as task forces on term contract.

It pains us more than a personal tragedy to watch that seminally vital COSIP and COHSIP projects were launched without the needed scholarly preparations, in routine styles of bureaucracy—missing nothing on paper while enumerating the details; and achieving practically nothing concrete after years of expenditures on these projects with all the melodious propaganda which have made the projects more of a *GOSSIP*.

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When the scholarly emphasis crossed the stage of the transmission of the known truth and entered the arena of the 'search for new knowledge', the activity of research was born in our universities. To start with, the edge of research was lower than that of teaching, but gradually, and perhaps also unfortunately, the research in top Indian universities became an end in itself and thus eroded its connection with teaching. Lately, teaching and research became distinctive missions, if not contradictory, as far as organisational structure is concerned. In research ideas become more important than persons and colleagues, and library and laboratory more important than staff meetings. For research, senior students become more preferable and post-doctoral candidates more suitable than those still toiling for Ph.D. degree.

Research as an activity has also transformed relations between faculty members. The working associations of researchers are with assistants and co-workers on a particular topic of research, rather than with faculty members of a department specialising on other sub-areas. Judgements of local institutional colleagues are not required and specialists from distant places offer critical observations on research findings. The result is the lack of interest of a research professor in local faculty meetings and the business of academic councils. He goes to departmental meetings mostly to ensure that the teaching time-table and load do not stand in conflict with his research project. For funds, the research professor explores agencies outside the university. The dilemma of a research professor is whether his first loyalty is the university which he serves or the discipline he practises. With all these differences, unless research is relevant to teaching, it should have no place in a university as it is possible for it to thrive outside, where it has actually progressed sufficiently as the sole activity not confused with teaching.

Research is now more comparative, instead of being contemplative and/or due to inner compulsion. The academic world in each country has grown so large that it cannot anymore be

CHAPTER 15

Ph.D. and M.Phil. Studies

Research as an activity has several definitions and connotations. Rating it high, it is stated that a research scholar, like a cow, should digest grass and produce milk. But the common view is that research allows students to juxtapose into various permutations and combinations the pieces of known and sometimes unknown knowledge. Applied research carries the findings of basic research to a point at which they can be exploited to meet a specific need.

Once upon a time, the general structure of the university, as an institution with the prime function of teaching, required continuity, close connection between teacher and student, a fixed meeting place and the minimum administrative apparatus. With the new mission of research many changes took place on the university horizon. Although private study, reflection and writing were always necessary for a teacher for keeping his mind sharp, lectures fresh and his students intellectually interested, the efforts in the past were individual pursuits, as against institutional plans of modern research.

While rating one's academic worth and the importance of the self, a university teacher is often heard saying that currently be is guiding research work of about fifteen students at a time, or tbat he has produced about thirty Ph.D. theses in the last so many years. Such statements project both the poor quality of work and the air of false prestige in a comparatively useless and bogus Ph.D. business. In accepting Ph.D. programmes and in identifying topics proper evaluation of international abstracts is seldom done. Nor are dissertation lists of various countries suitably studied. In fact, such tools do not exist in many universities. Hence. the question of their getting consulted does not arise. In the case of subjects of national nature, like local languages, history and philosophy, etc., it is never evaluated as to wbat resources exist on a topic whicb is going to be selected for research. In Pure Sciences, it is often seen that various constituent facets of a research topic have already been investigated, each separately, by other researchers abroad, leaving it only a matter of collation since rather than of research in our universities. Then, there are several university departments which have registered students for more than ten years and have failed to bring even one to fruition and yet tbey exploit the status of a research department. In any case, research in universities needs to be selective and relevant. It should not be like a fancy, ultimately becoming an intellectual hobby, which it has already become.

Research libraries all over the world have become complex institutions. A little coaching on how to use libraries with details of an individual library can save efforts of numerous man-months of a research student. Such courses need to be conducted also in our universities so that much knowledge of the elements of bibliographic control and dissemination are imparted to new research students.

The activity of research entered the universities after independence, but due to lack of its proper use it is doubtful if it will stay there for ever. It is likely to get separated from

populated exclusively by original researchers, thinkers and scholars. Many experienced academicians rightly realise that a university is for students. It works through teachers, and it is the new entrants to university, as against senior research students, who need the most attention of teachers. The practice of conducting costly research programmes in universities on subjects of temporary value and/or of no value and returns is fool-hardy, and also a big waste of many years spent largely for prestige and decorations. New candidates for a Ph.D. can never tell whether a job in research or teaching will be available to them when they finally get their doctorates. Nor can the university departments properly visualise the details of the Ph.D. labour market now or after about five years. Many doctorate degree holders are already on the road. Some newspapers recently reported that there were 36 Ph.D. candidates for nursery teaching. Perhaps, the first research project before the nation should be to study the quality and quantity of research programmes needed in various sectors. The U.G.C. report 1977-78 gives the followiog statistics on doctorate degrees awarded between 1973-74 and 1976-77 in various faculties :

Table - 5

Ph.D. Degrees awarded in various faculties of Indian Universities, 1973-74 to 1976-77.

Faculty	1973-74	1974-75	1975-76	1976-77
Arts	1,093	1,258	1,282	1,364
Science	1,327	1,515	1,516	1,671
Commerce	58	55	41	70
Education	60	77	82	98
Engineering Technology	95	163	136	152
Medicine	46	50	42	49
Agriculture	276	281	289	334
Veterinary Science	56	60	44	66
Law	4	5	.14	15
Others	41	14	19	24
Total	3,056	3,478	3,465	3,843

qualitatively—by doing assignments, tutorials, seminars and writing of papers etc. Research method is not a new variety altogether so as to crop up at post-Master's level, and be taught at M.Phil. stage. It has roots below. Hence, keeping on the campuses of our youth, who are not getting work in society, for the 18th year (which M.Phil. is) for routine teaching which is not highly productive, is to assault them in body and in spirit, further destroying their joy, creativity and tolerance. The only ability that gets improved in them under these conditions is the desire to agitate.

One of the major reasons for establishing M.Phil. was to assist our teachers in justifying their new salary scales. Now M.Phil. is no more obligatory as other alternatives have been worked out. Teachers are quite doubtful about the role of M.Phil. in the development of effective teaching. If the additional 12 man-months (gained as a result of 10+2+3) can ultimately help to accommodate the M.Phil. contents in the Master's second year, it may be examined by each department if M.Phil., as a separate and additional course over and above Master's course could be avoided. The first objective of the University Grants Commission to reduce pressures on the University System may be met, to a large extent, by accommodating M.Phil. at the earlier level, remembering also that higher degrees will be delinked from jobs.

It is fairly well-established that the first degree should bring a student to the frontiers of knowledge and to the threshold of the world of research and the second degree, should be able to plunge a student actually into research work for life. Let us review M.Phil. in the context of this principle. All these thirty years we kept on changing but nothing really changed. But this time we have gained additional 12 man-months at the post-graduate level. If proper care is not taken, it will result into a situation to teach a student for the fourth time—the same 'Law of diminishing returns' or the 'Wars of Panipat', because three

campuses and get carried in outside research institutes. Trends in this direction are already discernible. It will be a very useful data if a high-power Research Commission evaluates the achievements of research by the units of the corpus of Scientific Research, Universities and other agencies in the country during the last thirty years and recommend some models for useful and economic handling of research endeavours for the future.

While the Master's Degree in our universities was unsuccessfully struggling to achieve the value equal to its weight, the year 1977-78 witnessed large scale M.Phil. programmes in many universities. The Indian child and youth need to be respected, and also pitied for undergoing during their formative and adolescence the worst bore of teaching—teaching minus action and infinitely primitive teaching from the Class I to the M.Phil., (without work and productivity), where the reward gets deferred and ultimately only 15% of students get jobs at each stage of terminal examinations.

All concerned demand more qualitative-cum-effective teaching and less of quantitative and spurious class room talks. Yet, unconsciously we go on adding teaching years. A little arithmetic will show that just in two years we added two additional long years of much hated teaching—one by plus action at the top in the shape of M.Phil. courses; and another by the minus action of shunting down university courses to the second year of +2 in schools. The whole world would like to know what oriental magic the Indian scholarship will resort to for fruitfully utilising the additional 24 man-months; and as to what new inventions in the universe of knowledge have been made and, perhaps, kept a secret from them. It may be a contradiction that we teach 'Research Methodology' in M.Phil. which means that our students earn bachelor's and master's degrees without knowing the methods, ways, lanes and tracks of self-academic searching on academic assignments. Many countries cultivate these abilities in school students and in universities these methods just grow

qualitatively—by doing assignments, tutorials, seminars and writing of papers etc. Research method is not a new variety altogether so as to crop up at post-Master's level, and be taught at M.Phil. stage. It has roots below. Hence, keeping on the eampuses of our youth, who are not getting work in society, for the 18th year (which M.Phil. is) for routine teaehing which is not highly productive, is to assault them in body and in spirit, further destroying their joy, creativity and tolerance. The only ability that gets improved in them under these conditions is the desire to agitate.

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and abovc thc new additions to 3rd year of Pass Courses. As honours courses arc a preparatinn for mastcr's studies, by taking the mastcr's first year tn pass coursc third year, only most of thc mastcr's sccond year cnuld be brought to honours third year. What will bc thc resultant additions tn masters courscs? Will thc contcnts nf M.Phil. along with newer knowlcdge from the corpus nf mastcr's courses form the curriculum of Mastcr's studies? Are all subjects growing equally in depth and dimensinns tn justify bringing something ncw to M.Phil. levcl (having got vacatcd by transfcrs of its curriculum to Master's) just in a year of its cxistence? In brief, in case contents of M.Phil. are shifted to the Mastcr's levcl how will the resultant vacuum be filled in various subjects at the M.Phil. level?

Possibillty of just one Course: It is possible, so as to avoid the problems of shifting courses down and proportionatcly finding newer knowledge for placement at the top, that thc two courses of Pass and Honours be tailnred just into nne in view of gaining one more year—the 15th year nf the educand's life. *It looks rodical, it would disturb mony traditionol volues ond ospirotions. Moy be our hobitual thought processes reject it os 'Auto-suggestion'. But it is only a hypothesis.* Perhaps, it offers the scope for analytical penetration by the community of teachers in each subject for finding an objective solution of tbe problem, how to use twenty four additional months from the first degree course to M.Phil. The M.Phil. remains tbe undesirable teaching, telliog and explaining activity. It bas no ingredients, like Master's programme, to demonstrate and inspire. In quality M.Phil. is one more year added to the Master's studies. It is perceptible only in size, as an additional degree attacbed to one's name, not in results, wbile bigher education sbould be as gradual and effective as tbe moon rise, perceptible not in progress, but in result.

To start with, the integration of teaching witb research was the procedure adopted by an individual teacher, wherein the teaching

imes earlier he learnt nothing of them and thus the fourth attempt in M.Phil. is made to teach him something.

One third of the life of a student goes in learning without working and two-thirds, that too only of lucky ones, goes in working without learning. The rest remain unemployed. In fact, real learning is absent and only a kind of teaching is there which prevents, and fails to cultivate, the habit and the urge for life-long self-learning. The proper way for developing the M.Phil. programme was to decide first on standard curricular contents for all stages and then to go in for a time schedule. We have done just the opposite. Now only a careful co-ordination will solve the problem. Also, as there are common courses in M.Phil. studies for all students in a discipline, this cannot reduce the Ph.D. length of years to be put in by a student.

There are many implications of the third year of plus 3 programme and the addition of M.Phil. on undergraduate courses:

Pass-Course: In pass course the addition of the 15th year will mean bringing down the first year courses of Master's level to the third year of the pass level for which the existing 'subjects books' in regional languages in general and in Hindi in particular, will fall short of coverage. Efforts will have to be made by the teaching community to prepare right now books in regional languages covering first year master's course for use in the 3rd year of Pass Courses, starting from the session 1980-81 to avoid non-availability of learning resources.

Honours-Courses: Shifting of Master's first year to Pass Course's third year may lift the pass courses close to the height of honours studies. Such a possibility needs to be fully examined for the following reasons. What additional courses will be brought to the third year of honour's programmes? Obviously out of the master's programmes that may be over

for offering grants. The Commission spent Rs. 1,70,77,800 upto 1.9.1975 as grants for research on sciences and only Rs. 14,10,198 for advanced research in Social Sciences and Humanities.

The details for supporting research were reported by the Commission to the Conference of Indian Vice-Chancellors held in late 1975. The Conference of Vice-Chancellors proposed the following seven priorities for university research:

1. Individuals and departments that propose to undertake research in areas of fundamental importance as well as in areas related to national needs should be given all encouragement and support.
2. A substantial part of the funds for research should be allocated for support of projects involving inter-departmental, inter-collaboration, and the inter-disciplinary approach.
3. Research in areas that have remained neglected so far, but are of crucial importance to the social and economic development of the country, should receive high priority.
4. Support should be available for joint research projects that involve collaboration with other universities, the national laboratories, central organisations and R.&D. institutions outside the university system.
5. Efforts should be made to ensure that the proposals are formulated in accordance with the guidelines giving the objectives, research design, hypotheses, and other relevant information so that these may be considered in proper perspective.
6. Information regarding the programmes should be widely disseminated by the universities so that more and more teachers, departments and colleges become involved in it. The procedures for processing should be streamlined and funds for the purpose should be augmented so that the

was a public activity and research was done privately. Now both are public activities. Research is not a private affair and it is counted on the teacher's load of work. Also, in many cases it is now the research which is integrated and adjusted with teaching to regulate the latter rather than the earlier opposite practice. The research as an activity is divided between two kinds—Research work and 'Training in Research'. It is the training in research that falls under the University education and it should normally end with the degree. Research in France, Germany and England is largely located outside universities while in U.S.A. all types of research get located in graduate schools. In India, we have already developed the British models of Council of Scientific Research, Medical Council and other subject councils. In view of this style, vesting more than 'training in research' to Indian universities will be impractical and wasteful. The proper nomenclature of research elements in universities may be 'academic research', and its scope should be limited to training in research.

The University Grants Commission of India have wholeheartedly supported research projects in Indian universities under the areas of Sciences, Social Sciences, Engineering, Technology and the Humanities. The Commission granted core support for research to each university in addition to supporting individual and group research projects. The Commission has identified areas of collaboration with other research agencies like Council of Scientific and Industrial Research. A Directory of Scientific Research in Progress was published by the Commission in 1974 covering about 10,000 research projects, conducted by about 11,000 scientists in about 1000 research departments. But the response from the academicians in Social Sciences and Humanities for using UGC grants for research had been rather a weak one. The UGC reported that for short-term research only one out of four and for advanced research only one out of six proposed projects were taken up by various expert panels

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programme makes some impact, especially in relation to college teachers.

7. Teaching and research go hand in hand and both wither in isolation. It is imperative that teachers continue to take active interest in the pursuit of research, investigations and enquiries relevant to national and regional needs and in the promotion of excellence.

These general principles for priorities deal only up to the stage of making decisions for grants. Also, just by stating that priority be given to areas neglected so far (item 3 above) is not enough. The UGC should enumerate these crucial areas and take effective steps to launch such projects. We need to develop some objective monitoring and control methods of the conduct and results of research in our universities. In the absence of sufficient evaluation, our university research may not be able to achieve desired results and standards. We still do not know how to transfer the results of university research for application in our society. The process ends up in publications, or at the most in going in for patents in technological fields. Not many patents have been registered as a result of university research. Most of the university research projects remained only the academic programmes of university departments for providing training in research, as an academic activity, or helped a professor in his career.

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book from £ 4 to £ 12. In converted Indian rates an average book costs over Rs. 150, if not more. When about a thousand libraries buy a copy of a book each at inflated rates of Western cost of production, the foreign exchange burden becomes too much for the Indian economy. In the case of certain books the total number of copies consumed in India ranges between five and ten thousand.

Realising that a considerable number of copies of a useful book is needed in India and also that cost of production of a book in India in Indian rupees is much cheaper than the cost of production in the West, in dollar or sterling, it appears economical and convenient if Indian publishers simultaneously publish an Indian edition of a good book originally published abroad in English language. If such Indian editions of good books are published in India, only the royalty portion calculated on a percentage of Indian rupee price will be a liability to be paid abroad in foreign currency. The amount to be paid as royalty will be a much smaller amount than the present practice of paying the total cost in foreign exchange by importing books in India. If simultaneous editions of useful Western books are brought out in India, the Indian publishing industry will grow further and book-selling trade will thrive, both employing numerous extra hands. The expenses on foreign postage by libraries will also be saved. The world's greatest English-knowing population in a country will not remain deprived of books in English.

Already certain foreign books are getting published in India and some of these are sold at subsidised rates. The main channels are: Joint Indian-American Text-book Programme; British Council Programme. and in negligible cases certain Indian publishers acquire rights of publication in India. The thin size (only 100 pages) of the Joint Indian-American Text-book Catalogue of 1977 reveals the story of poor efforts. The British Programme is very limited too. The efforts of Indian publishers to bring out Indian editions are casual in nature. One of the

CHAPTER 16

Famine of Good Books

The book needs of Indian scholarship, learning and research are enormous. We have over a hundred universities, thousands of colleges and scores of research institutions, both federal and at state levels. Owing to our historical associations, English is the international language as French and German are for other countries. Knowledge today is international in character, composition and output, while the Government leaders and men may not be so. In the Indian context, the bakeries producing idea cakes in English are located in England, U.S.A., Canada and Australia. Indian publishers are also keeping their bakeries hot and whatever progress the Indian publishers have made in the last thirty years is remarkable though not significant in the total world context.

A good book published abroad in English may have at least a thousand needy buyer libraries in India. All these thousand libraries are generally simultaneously engaged in placing orders for a good book for supply from abroad, either directly or through a local vendor. Due to inflation in the late 70s the average price of an American book has risen from $ 7 to $ 17, and of a British

pay fifty per cent of his income as income tax. This high rate of taxation is penny-wise and pound-foolish on the part of Government of India, because then the country pays about seventy five per cent of the high cost as per the western cost of production and sale price, in foreign currency, by importing books. All these problems can be solved if the Indian Cabinet decides to take the initiative through Embassies abroad to pursuade foreign publishers, assuring them of proper use of licencing rights and about reduction in local taxation rates. Certain countries including super and semi-super powers do not at all honour copyright rules. Their embassies acquire useful books abroad and send them to an agency in the country which gets books translated and such books automatically reach the tables of academicians for study. The Indian scholarship has been careless by not writing sufficiently its own books or adapting foreign books of academic and research worth foi India. Our country cannot afford to import *nth* number of reading materials for such a large university and research population. Hence, we remain without them and our know-how suffers. The greatest folly of the Government, however, is in making rules by equating books with grocery items and other consumable items for purposes of export, import, need for quotations and commission, etc. Books should be treated differently. Like Britain, India should make it illegal to allow discount on books. Only then, the scholarship and book-production will grow in India.

If the Indian Cabinet, university and research agencies, technological and industrial units and publishers jointly examine this problem in association with academic librarians it should be possible to make great progress in this direction. Delegations of British and American publishers associations should be invited by Government of India for improving affairs in this field. Later on, when Indian editions are well marketed within the country, efforts can be made to obtain the marketing rights of Indian editions in Asia and Africa. Western publishers will be

objectives of the National Book Trust of India is to implement 'Core-books' Programme for making available university level Indian works at lower prices. Not much has been achieved by the Trust in this direction. The result is the famine in our country in so far as good books are concerned.

Under these circumstances, the Government of India should consider the idea of making Indian publishers obtain publishing and marketing rights in the country of good foreign books by paying only royalty in foreign exchange at a particular percentage of the Indian selling price in rupees. This plan is much more economical than buying foreign published books of high cost in foreign currency. But for producing Indian editions of good books published abroad, the publishers of India will need guidance from Indian scholars in the selection of titles. As monthly and weekly announcements of books to come, and those already published, are regularly coming out from U.K. and U.S.A., such data could be studied by publishers in consultation with academic libraries and subject experts.

A book in the English language generally gets simultaneously published in New York, London, Ontario (Canada) and also in Australia. India and the sub-continent of India have a very large English-knowing student population. But the publishers of multi-country publications do not cover Bombay or New Delhi for local publication and simultaneous release. There are many reasons for this neglect. It cannot be denied that the international publishers do not bother much about developing countries. Secondly, not having their own branches in India, they are not sure about the accounting honesty, hence, they do not venture to grant licences for the purpose to local publishers. Thirdly, the most serious risk lies in cootrolling that books reprinted in India do not get smuggled into Western countries due to lesser cost of local production and greater profit in sales to the West.

Another serious handicap lies in the taxation rules of the Government of India wherein a foreign publisher is required to

working this Scheme, specially, the *modus operandi* of selecting books under the Scheme. It was found that the Trust was not able to select the right kind of books deserving such subsidy. The Chairman sent the Scheme catologues to the Vice-Chancellors of Indian Universities with a request that the catalogues be reviewed by faculty and views be conveyed to the Trust. The Trust also desired that faculty may identify gaps to be covered. The request of the Chairman of the Trust got a poor response, as it was bound to be.

The observation "as it was bound to be" places the burden on the observer to prove what has been observed and the soundness of the observation. The validity of the observation can be examined in the following ways:

1. The University faculty is indifferent in its attitude toward such requests.
2. The University faculty itself does not *properly* know foreign books so as to decide and advise accordingly.
3. Keeping in view the unlimited explosion in publications of books abroad, it is not possible for the general faculty to know the new and valuable books in their special umbral or penumbral areas.
4. The total fault is not of the faculty because it does not get served by comprehensive 'Bibliographical and Information Services,' which do not exist in our universities.
5. For creating 'Bibliographical and Information Services' our universities and the University Grants Commission have not taken concrete steps.

Some more arguments can be advanced to support the observation, "as it was bound to be". But there is no use in analysing it any further. The mistake lies more on the part of the three or four members committee of the National Book Trust

happy to delegate such a marketing right of Indian editions because their marketing expenses in these continents, except in a few countries, are generally in red figures of the total balance-sheet. Having obtained Asian and or African marketing as well, payments of royalty will be much easier out of this earning. Countries in Asia and Africa will welcome Indian editions because of lower prices. UNESCO may also like to support such projects because they would help developing countries to meet their needs of learning and knowledge at an economical cost. The mal-distribution of books and information is certainly one of the greatest inequalities in the comity of nations—probably a greater one than the mal-distribution of wealth.

Let us analyse the efforts of the National Book Trust of India in this respect. The Trust does assist in a humble way the promotion of standard Indian books, by subsidising publication and by organising book fairs etc. for selling them. The foreign books reprint programme for providing standard university text-books at lower prices is also conducted by the National Book Trust of India. The exact title of this programme is, 'Scheme of Subsidised Publication of University Level Books in English'. It covers text books, reference books and other discipline oriented reading materials of use to university students. Both, published and unpublished manuscripts can be accepted under the programme. It covers the books of origin in the United Kingdom, United States of America and Russia. Adaptations of foreign works is also accepted. The Trust can commission eminent authorities to write books on specific subjects. Bureaucractic excellence in planning can be seen in the provision of accepting even the works of foreign nationals domiciled in India. The rules for selection of books and manuscripts have been worked out with great accuracy and perfection for they have come from the bureaucracy of which the country feels proud.

When it comes to implementing the scheme, the difficulties start. In 1978, the new Chairman examined the details of

CHAPTER 17

Give Children Their Books

Milton rightly said, "The childhood shows the man as morning shows the day." The same principle applies in learning resources and abilities of children and adults in higher education and thereafter. It has been experienced that Children's Books have contributed a great deal in emancipating children from ignorance. These books help a great deal in cultivating strong academic habits of learning and thinking. They have given the children real joy and knowledge. It is our generation's duty to give children their books.

Children and adults are different worlds. Children are free from many mental restrictions. Adults are prisoners of their values and approaches. Even if they play and go for recreations it is for some reason or other—to forget, to relax or be on vacation. While children play for the sake of playing. Children are another type altogether. Each day they play, run, fight, shout, love their parents and the folk around. They possess a good appetite and by the late evening they get tired and go to sleep. They wake up again fresh with the next day's sunrise. Despite

which may have conceived of the *modus operandi* which was adopted by the Trust for identifying the titles. The *modus operandi* adopted was not altogether wrong. It simply lacked comprehensiveness. The proper method for adoption by the Trust was to acquire advisory expertise on the bibliographical control available in the country. There are numerous and up-to-date bibliographical tools of value which are produced through costly and scholarly inputs in many countries. With the help of these tools the first thing to be prepared was a preliminary list of useful books. It is such lists which the Trust should have sent to a university and its faculty for opinion and recommendations. The lack of modern approach by three or four members, having bureaucratic methodology, resulted in the failure of the scheme of the National Book Trust of India. The real task is, therefore, to educate the top committee men on a proper and effective *modus operandi*. This kind of education can take place only if such persons in authority first start doubting their routine approaches to books, libraries and information affairs. The second required element on their part is to generate a willingness to seek advice from students of bibliographical control.

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is not prohibited, but it should be a profound one. Let not middle class hypocrisy or stories of small charities to a poor man be the narratives. Instead, *action truths*, like Rama's giving up of the throne, be incorporated to generate life long inspiration. Children's books should have integrity to perpetuate their own justice and truth; tolerance and charity; struggle and achievement; and ultimately objectivity in life.

If adults wish to dominate, the children know-how to be free. If we want to give them a book with more crude knowing contents they turn away with disgust. They first manifest inertia and later they become offensive. Some books that have lived ages with children are *Robinson Crusoe, Gulliver's Travels* and *Don Quixote*. Let such books be given to children all over the world supplemented by stories of family life, adventure, humour and fantasy, games and sports, animal stories, folk-tales, clearly written how to do books, picture books, simple poetry, books on different lands and peoples *and at a later stage*, informational books, books for personal social development, books of morals, biography and historical fiction, etc.

A youngster sees in his mind's eye the whole world spread before him for exploration. In the company of *co-agers* one wishes to travel through the pages all over his country, continents and his one world—the planet earth, the space, and the universe at large. Don Quixote and Sancho take them to various other plains and to inns full of adventure. They love to visit desert isles, pigmy country in Africa with Lilliput. They wish to live in *Uncle Tom's Cabin*. *Going to the bottom of sea* with Jules Verne can be a thrill for them. Robinson Crusoe's adventures make a child familiar with man's courage, practical character, and spirit of adventure. This book in particular has contributed n lot to England's achievements and discoveries both on land and sea. Stories from *Uponishads*, Arabain Nights and sayings of Birbal and Nasruddin provide altogether a different flavour to the

ignorance of worldly affairs and sophisticated know-how, they are the happy people rich with the wonders and thrills of new experience and knowledge, which they gain each day. Their learning details and knowing of newer entities each day keep them alive. Most adults, in fact, stop learning and are busy with routines and problems of responsibility and worry. Children are not bothered by the restraints of rigid reason. Their imagination and spirit require food. They request stories, pictures and outings. Tell them a story and they ask for more. Give them a children's book and they quickly want another. Adults will fail to provide for children's learning needs, unless the movement of children's books properly grows in a country or society. In this respect the Western World has achieved far greater progress and the Third World is unfortunately very much behind. For the reconstruction of the Third World, the most essential item after food and clothes, is the children's books.

The books that a society should offer to its children should not ooze boredom. The children's books should be free from adult hypocrisies. Let the children's books not represent adults and their selfish attributes. Care should be taken that books given to children do not paralyse the spontaneous forces of a child's soul. The prejudices of adults should not be allowed to enter children's literature.

Books *predicting the very essence of art* should be there to offer to children an intuitive and direct way of knowledge. They should be things of beauty capable of being perceived spontaneously. Pictures representing the riches of man's history arouse vibrations in children's souls. Children's books should be directed more towards sensibility than sentimentality for making them respond to great human emotions. Books on animal and plant life generate in them love for universal life. Wit and charm should be the styles of all children's books. A child is thrilled when he reads of the *Sleeping Beauty.* "Is it you, my Prince, I have waited long for you to come?" Moralising

child welfare need to plunge into this vital field with greater interest and with the touch of modernity.

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life of a young. The children's literature gives proper preparation for the success of Secondary, Tertiary and life long education.

Children's authors should not be cramped by their adult prejudices. The claims of adults to possess truth, without the shadow of doubt, should not be incorporated in children's literature. Massive and indigestable knowledge should be out of bounds. If we ask our children only to learn what is taught in schools, and do not give them what they need in addition to sustain their dreams and aspirations, we apply a fullstop to their learning process. Also, let parents not conceal a classroom while providing materials for the dreams of children. Let the children not get the opposite of what they ask for. Providing children with suitable books is one of the essential charges on our culture.

Each society in the Third World needs Perrault, and the Wise Governess in Leprince de Beaumont to entertain children. Going back to origins, we find the great rules of Caxton's (1497) *The Book of Courtesye;* de Worde's (1495) *Properties of Things,* and Caxton's (1484) *Aesop's Fables.* After over a century came Topsels' (1658) *The History of Four Footed Beasts* and Bunyan's (1678) *Pilgrim's Progress* also appeared and both were widely read. Then appeared the famous *'Mother Goose'* (1730). The nineteenth century introduced children's books of instruction and knowledge. Stories of adventure continued to come. Humour and fantasy also appeared by 1890's. But it was the twentieth century which opened up the entire universe for children through children's books, particularly wonders through science books, and countless periodicals that emerged. Child Welfare agencies and governments should continue to help in food and clothing programmes which make most children survive in the Third World. But, at the same time there should be long term investment in modern children's books which will make today's child achieve greater things as adults and thus *in itself* help the child of tomorrow. International and national agencies for

Since a student can converse freely in his mother tongue, the task of reading becomes quite easy. Reading in one's mother tongue, therefore, should be channelized to achieve the following ends:

(*i*) enriching life.
(*ii*) developing insights into experience and ideas.
(*iii*) developing literary appreciation.
(*iv*) developing independent reading ability.
(*v*) improving skills to understand authors.

These objectives can be achieved by the exercise of precaution and judgment on the part of teachers and librarians in selecting reading material for students. The books assigned to students should improve their literary appreciation. The needs and interests of students should be given due importance. Newspapers and magazines must be given to students so that they become familiar with narrative material. Teachers should introduce students to the reading of various forms of literature (poetry, prose, drama, short stories etc.) and point out their peculiarities. For a proper reading of poetry, the teachers must inform the students that:

(*i*) Most poems have to be read aloud.
(*ii*) A poem is compactly written and each word has to be read to grasp the main idea.
(*iii*) Words in poetry are often implied.
(*iv*) Poetry contains figurative language.
(*v*) Symbols are often used in poetry.
(*vi*) Complicated allusions are made.
(*vii*) Inverted word order is generally used.

These features of poetry demand a slow, intensive, and concentrated reading. Some poetry appeals to the emotions and some to the intellect. Narrative poetry is easier to read than other kinds of poetry.

CHAPTER 18

For Better Reading in Schools

The activity of Reading is the first step in the process of learning and is common to all the subjects that are taught in schools and colleges. Some facets of this activity are common to any subject. At the same time, there are certain aspects unique to each individual subject. Teachers should see that these features are grasped by their students. A proper understanding of these peculiarities will help students in their study. Here an attempt has been made to suggest some ways for improving the reading ability of students in their mother tongue and in English, Social Studies, Science Subjects and Mathematics.

1. *Reading in the mother tongue* : In our country there are about a dozen and a half languages. The mother tongue of a student in Bengal is different from that of a student in Andhra or Tamil Nadu. But the features and problems of reading are more or less common to all the languages used as the mother tongue. Reading in one's mother tongue differs from reading in other languages because, of the enormous advantages a student possesses in finding himself at home in his own tongue.

3. *Reading of Social Studies :* Modern findings on the teaching of social studies reveal that verbal intelligence is closely related to reading ability in Social Studies, and also that literal and critical reading are relatively independent abilities. Teachers of Social Studies feel that a good student possesses a broad specialized vocabulary, has an accurate understanding of space and time, develops metaphorical language and an average intelligence, holds liberal views and takes active interest in community affairs.

Since the topics covered by Social Studies are generally beyond the students' experience it is essential that the books suggested for reading should possess the following features:

(*i*) Sufficient illustrations, maps, pictures and diagrams.
(*ii*) Ideas should be presented in a logical sequence.
(*iii*) The books should have a minimum of new words in each chapter.
(*iv*) They should be well within the reader's comprehension.
(*v*) The chapter headings, section headings, and marginal headings should be clear and unambiguous.

Teachers of Social Studies should use certain useful teaching methods. Some of the following methods could be used:

(*i*) The introductory material should be more or less familiar to the students.
(*ii*) Experience common to young students should be used as examples.
(*iii*) Familiar words should be used to explain unfamiliar concepts.
(*iv*) Use should be made of specific words, as much as possible.
(*v*) Details should be explained to clarify main ideas.

The major subjects covered by Social Studies are : History, Geography and current events. While reading History, the students should be taught to think on the following lines:

(*i*) What led to a particular situation ?

Similarly, short stories and novels have their own peculiarities and an understanding of these features by students is essential. Sometimes plots are important and sometimes the characters dominate. Students should be given sufficient training to follow the development of the plot.

If students are oriented in the structural aspects of poetry, fiction, non-fiction etc. their reading abilities in the mother tongue are bound to improve.

2. *Reading in English :* The features and problems of reading in a foreign language are, in general, identical to those observed in one's mother tongue. In our country, the English language has a peculiar position. It is neither a native language nor altogether a foreign language. In schools all over the country, English is taught in addition to the native language. The practice of teaching a foreign language in schools is common to many countries of the world. Therefore, English as a second language is not an additional burden on our students.

Teachers of English in our country must emphasize the need of a direct association between words and their meanings, the understanding of structural and phonetic features, and the building up of a sound vocabulary. It is essential for teachers to provide satisfying explanations, create appropriate situations, and give group-practice in conversation.

Specialists in the teaching of foreign languages suggest that a student should be sufficiently exposed to the new language. One of the useful techniques of learning a foreign language is the multi-sensory approach, wherein students simulatneously speak aloud, see and write.

In the teaching of English to our school students we must introduce work-books for different grades. Graded general reading material should be given to students for supervised reading in a class. Word games should be taught and it should be seen that sufficient conversation practice is given.

4. *Readings of Science Subjects :* The textbooks of science demand a variety of skills on the part of a reader. Hence, reading of science materials differs in many ways from the reading of either literature or social studies. The reading in science subjects, too, have their own peculiarities. A major problem in the reading of science is difficulty with terminology, symbols and abbreviations. Most of the science subjects borrow some mathematical terms as well. Many science teachers feel that in a number of cases unfamiliar term could have been avoided and a common term used. For example, the term 'meteorologist' could be avoided and 'weatherman' used. The second difficulty of our students about terms is that they do not have any occasion to use them. The next idiosyncrasy of science terms is that the words used in common speech have an altogether different meaning, for example, the word 'force'. In order to meet this difficulty, the teachers should give special attention to terms and their complete understanding by students. Since most of the terms are frequently repeated in science texts, it is essential that they are understood. The teachers should compile a list of such terms and explain them with the help of a chart. New terms and concepts should be introduced very carefully. From time to time, tests should be conducted to find out the students' understanding of terms, and if need be, definitions should be repeated. Many enthusiastic teachers have organized science clubs for their students to improve their understanding through discussions, displays and film shows. Students in schools must be taught how to consult a reference book in science. They should be asked to compile a glossary of science words they know. Reading of science texts is more meaningful if the student has the opportunity to conduct experiments. Study of science demands interpretation rather memorization. A science text, due to its mathematical formulae, definitions and laws, is different from texts of social studies and literature. The descriptions of steps or procedures of experiments require careful reading by students. Students are required

(*ii*) What problem does a situation present ?

(*iii*) What may happen next ?

(*iv*) What will be the consequences of a particular situation ?

(*v*) Whatever had happened, was it right or wrong ?

(*vi*) What questions does a set of facts answer ?

While reading Geography one must constantly use pictures, charts and graphs. A comparison should also be made between different lands and peoples and their environments, physical and social. A good knowledge of reading maps is essential.

For the study of current events, newspapers and magazines are important materials. Students should be given practice in interpreting modern events in the light of historical perspectives. Teachers should read out in the class news items and articles, generally of a controversial nature and then ask students to discuss it. Teachers should ask students to read in the class short but important news items. This is likely to interest students in Social Studies class. The bulletin board should also be used and students be asked to display their clippings on it.

The school librarian could be of help in providing suitable reading materials. While giving a home assignment a teacher should be very careful and should not just ask the students to read the next ten pages of a Social Studies textbook. He should explain to his students the related facts, help them to get a preview of the concepts they are likely to encounter. Unless suitable guidance is given before an assignment, students will gather only a few scattered ideas and facts, which will be of no use. Division of a class into groups and sub-groups for reading purposes is a common method adopted in the teaching of Social Studies. A careful explanation of important concepts like the constitution, democracy etc. is quite essential. These days, many good general books are available in different languages which could be used for instruction in social studies apart from the textbooks.

4. *Readings of Science Subjects :* The textbooks of science demand a variety of skills on the part of a reader. Hence, reading of science materials differs in many ways from the reading of either literature or social studies. The reading in science subjects, too, have their own peculiarities. A major problem in the reading of science is difficulty with terminology, symbols and abbreviations. Most of the science subjects borrow some mathematical terms as well. Many science teachers feel that in a number of cases unfamiliar term could have been avoided and a common term used. For example, the term 'meteorologist' could be avoided and 'weatherman' used. The second difficulty of our students about terms is that they do not have any occasion to use them. The next idiosyncrasy of science terms is that the words used in common speech have an altogether different meaning, for example, the word 'force'. In order to meet this difficulty, the teachers should give special attention to terms and their complete understanding by students. Since most of the terms are frequently repeated in science texts, it is essential that they are understood. The teachers should compile a list of such terms and explain them with the help of a chart. New terms and concepts should be introduced very carefully. From time to time, tests should be conducted to find out the students' understanding of terms, and if need be, definitions should be repeated. Many enthusiastic teachers have organized science clubs for their students to improve their understanding through discussions, displays and film shows. Students in schools must be taught how to consult a reference book in science. They should be asked to compile a glossary of science words they know. Reading of science texts is more meaningful if the student has the opportunity to conduct experiments. Study of science demands interpretation rather memorization. A science text, due to its mathematical formulae, definitions and laws, is different from texts of social studies and literature. The descriptions of steps or procedures of experiments require careful reading by students. Students are required

to interpret the texts to arrive at their own conclusions, generalizations and inferences. An advantage in the study of science, as compared to certain other subjects, is the availability of diagrams, charts and pictures.

While reading science books, students must acquire the habit of asking the following questions:

(*i*) Why should the theory be stated in this way and not otherwise?

(*ii*) Where are the limitations and exceptions, if any, of its applications? What will the various implications of this theory be in different situations?

Such questions should be explained to students by teachers with the help of suitable examples.

5. *Reading of Mathematics:* Study of Mathematics is difficult even for good students. A factor contributing to this difficulty is the nature of mathematical terms. This difficulty remains, no matter what the language of instruction. A proper understanding of the language of mathematics itself is called for.

An analysis of mathematical terms in any language would indicate the following major difficulties:

(a) Various terms are used to indicate a particular operation and some for just one operation.

(b) Many technical terms used in Mathematics have altogether a different meaning from what they have in common speech.

(c) Many technical terms are abstract and, hence, difficult to grasp easily.

Teachers of Mathematics have made certain investigations in this area and compiled a list of such terms. Some of these are:

Area, average, centre, cricle, depth, difference, distance, per cent, proportion, quantity, scale, single, square, straight, time, total, vertical, weight, whole, width, etc.

Equivalents of these terms in any language are troublesome

to students. Therefore, a teacher of Mathematics should take steps to make his students clearly understand these concepts, whatever the language of instruction.

Without a clear understanding of mathematical terms a student can never go far in the field. Teachers should try to find out the terms that are bothering the students and explain them properly. The teachers should work out a phased programme for introducing these terms throughout the year. Students should also be made aware of synonymous (interchangeable) words for concepts and processes. As far as possible the teachers should make their students identify these terms in a variety of situations. Experience suggests that most students fail to understand properly the true concept of formulae.

A sufficient number of exercises should be done in the class immediately after a formula has been introduced. Students should be encouraged to use various technical terms in their writing and conversation.

While studying mathematics, students should develop the habit of noting down details, analyzing and drawing inferences from these. Unlike Literature and Social Studies, the context does not yield the meaning in Mathematics. A calculation in Algebra and Arithmetic and figures in Geometry make the concept clear. An attempt to put things down in one's own words helps a student to understand well what has been read in mathematics. Understanding of mathematics demands repeated reading. Some teachers feel that in certain areas of mathematics the second reading helps in finding out pertinent words, the third reading generally reveals the relations between them and the fourth reading helps in interpretation. In Geometry, however, experts feel that the second reading reveals the details of a figure, the third reading enables one to make a symbolic statement, and the fourth helps in interpretation.

While reading a mathematical text, students should constantly remain alert by asking themselves questions like:

What are the facts mentioned ? What questions could they answer ? Which method should be used to solve it ? What are the steps in that method ?

If Mathematics is studied in this manner, the degree of comprehension will be higher. Students should be told to build up a mathematical vocabulary by writing down in their notebooks the new terms that they come across.

At present no attention is being given to reading problems by teachers and educational administrators of our schools. Each subject has its own peculiarities and these should be given sufficient attention by all the subject teachers. They should endeavour to launch investigations into the reading problems of students in a subject and should publish their findings in educational journals. An awareness on the part of teachers about the reading difficulties of students and their efforts to improve instruction will go a long way in inculcating a reading habit in our students.

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CHAPTER 19

The Heart of a University

For modernising and improving university education, we cannot ignore the roles of a rich library, its teaching services, and the faculty roles of dynamic librarians. The teaching faculty cannot anymore conduct higher education alone. It must seek the help of the cousin-librarians. This postulate needs to be accepted and implemented sincerely. The second postulate, which we need to accept and implement honestly, is that higher education is self-education, wherein organisers and disseminators of knowledge through libraries play valuable and inevitable roles. Very many high sounding words and pharses have been used by numerous educationists about the seminal value of university libraries in our higher learning. But, except Dr. C. D. Deshmukh, no other Vice-Chancellor in the country has devoted much thought and efforts to improve our libraries.

The university libraries and librarians continue to get ignored in performing their valuable roles in modernisation of education. The reason for this continuous neglect of our university and college libraries in the process of education can be found in the absence of pressing need and essentiality of full and

proper use of our libraries. They are not used because they are not required to be used in the game of earning degrees. Professor Carl M. White, an eminent American Librarian, while studying the libraries of the University of Delhi in 1965, regretted to note the following about India's pioneering university:

> "The hard fact to be faced is that the University of Delhi inherited an educational tradition which treated the library as a conventional but useless accessory. Had the library by some misfortune been suddenly dropped into the Jamuna River during the early years, the loss would have been regrettable but I search in vain for any convincing evidence of daily demands upon it by teachers and teaching assignments which would have caused the academic programme, as then conducted, to suffer from the disaster.....".

It is a fact that many universities and colleges in India will continue to operate in 1980s if their libraries are dropped in nearby rivers. But in a limited number of universities the work would come to a standstill. Of course, the functioning of the UGC office would itself suffer no disturbance through this tragedy.

The roles of library and information services in higher education generally have three patterns. All the three patterns are there to match, one each with the three possible methods of teaching and learning in vogue in a university. The first method is the one where the classroom teaching largely means dictation of lecture notes followed by the annual examination. No library service is required in this type of teaching. The second possible method is one wherein students require text books to read in addition to lecture notes. In such a process also the type of library service largely means servicing of books on demand from the issue counter (as a cup of tea is served on demand at a tea counter). Not much of professional acumen is needed in lending of books for serving the second mode of teaching.

However, the third type of teaching philosophy is one wherein the students and the faculty play active roles and both

need to open up the wide vistas of a subject with the help and guidance of librarians. It familiarises students with intellectual records and tools in the subject available in a library and these services are consumed sufficiently both by students and teachers. In modern times, it is seen that teachers need dynamic library and information services, both qualitatively and quantitatively, for their multi-dimensional needs of teaching and research. *It is under this form of higher educatian in a progressive university that a modern library steals an edge aver the traditianal lecture method.*

Through its service of information on any topic by subject-specialist-librarians, this kind of library plays the role of an academic workshop. Academically sound and professionally agile, the library and information staff, working in such an academic workshop as library, is treated as faculty staff. They are neither humiliated nor degraded by categorisation under non-academic staff which blocks their initiative and kills their desire (as is the practice ina caste ridden society) for accepting the modern challenges of a professional information scientist in tbe seivicc of scholarship and research. The irony is that, in contrast, we know that hundreds of universities abroad advertise their library positions equal in rank, status and benefits of the teaching faculty of a university. This equality of status is the pre-requisite for an administration to expect the library to work as an academic workshop with devotion and zeal.

It is certain that our universities and colleges need this third type of library and information services from their libraries if standards in higher education are to be raised. It is the rendering of service in terms of information, abstracts, bibliographies, photocopies of texts, etc. (both expeditiously and comprehensively) that need to be provided by our libraries, because the dynamic teaching faculty and receptive students are very much demanding such services, which they know are being already rendered as normal and routinc services in universities abroad.

The current trends of higher education, research and teaching techniques demand the following as a matter of necessity from our college and university libraries :

1. to provide research-oriented resources in various disciplines.
2. to help the teachers and researchers in keeping abreast with current developments in their respective fields through awareness services of a modern library.
3. to provide library services and facilities necessary for conducting undergraduate and postgraduate instruction.
4. to develop congenial conditions for research in our libraries which are at the present neglected as scheduled caste units of Colleges and Universities.
5. to develop learning resources in inter-disciplinary areas.

In brief, the quality of our library and information services is to be instilled with more dynamism and stability to make them research-oriented and properly suited to the needs of the academic programmes and research undergoing in various universities. In fact, good quality library services will enhance our teaching and research standards, and will provide new dimensions of modernity to our scholarship. Our academic libraries should develop bibliographical control over the reading materials possessed by them. We need to develop special *collections of audio-visual aids.* Our libraries must develop at different geographical levels—in a town, a group of neighbouring towns and in a state. It should become necessary for our students to undergo orientation and users' education programmes for proper utilisation of the library resources in our universities. The structure and functioning of modern library and information services, that need to be developed in our academic libraries, should obtain the top priority in the plans and actions of the University Grants Commission.

The character and the composition of about a dozen major University Libraries should be on the lines of a large federal university, differing in many respects from the concept of a normal singular university library in India, for which the UGC has certain norms. The classification of major libraries should be on 'divisional lines' covering subject groupings in Sciences, Social Sciences, Law and the Humanities. At the apex, each major university should have the Central Reference Library. In addition, there should be certain libraries dealing with languages and area studies. These libraries should be required to offer qualitative library and research services to the university community in its area.

The divisional libraries in modern times operate to serve the needs of specialised nature of requirements and thus lead to the understandable desire for exclusiveness and compartmentalisation. Obviously, there are certain advantages and also some disadvantages of this compartmentalisation. Through the creation of divisional libraries, the advantages of departmental libraries are largely retained and the possible disadvantages of centralisation under one roof are largely eliminated. So long a library, containing relevant documents of constant use, is available near each faculty (or group of subjects) the advantages of compartmental libraries are retained by divisional libraries.

Regarding the anti-interdisciplinary situation that emerges due to creation of 'Divisional Libraries' it may be suggested that the disadvantages of it are much less as compared to the disadvantages due to existence of individual subject libraries. Also, through the divisional libraries the needs of intra-faculty disciplinary studies will be properly met. Regarding studies and research of inter-faculty disciplinary studies, the devices of intended duplication, inter-library loans and other modes of library cooperation should be available. In fact, through the establishment of 'divisional libraries' the bigger universities will evolve a sound solution of the traditional problem of conflict

between centralised library versus departmental libraries, particularly when each divisional library is located close to relevant subject departments, limiting the walk to the library to about a few hundred yards.

Despite dynamic multi-dimensional growth of at least six major universities in India, their libraries continue to be the same old units. They have not seen O. & M. or R. & D. elements in their anatomy and physiology. The result is that they fail completely to meet the demands of services as per cumulated growth over three decades. In absence of well-set and properly defined management provisions, the libraries of our major universities still suffer from unintentional pricks of the main office of a University where decisions about such an important unit are taken at a tertiary level without caring for the serious implications and difficulties that follow such decisions. There are many administrative bottlenecks that need to be removed and the major unversity libraries should be accorded reasonable administrative autonomy within the total framework of the university so that reasonably modern library services may be generated for the patrons of the libraries. It is necessary that a suitable administrative pattern, that can take care of this on-going growth of some university libraries, be evolved at an early date by a Committee of Management Experts so that the human resources in libraries are encouraged to put in their maximum efforts, under suitable administrative and working conditions, in the service of higher learning. It is fortunate that human resources now available in the library profession are at par in academic qualifications and abilities with university lecturers and university readers. Since the last ten to fifteen years, good master's degree holders in Sciences, Social Sciences and Humanities have joined the academic profession of library and information science. They need encouragement and support from universities and colleges for executing their academic responsibilities in raising standards in higher education. Their roles are vital in modernising our higher education.

The world of learning has witnessed a new and effective invention to cope with the knowledge explosion. This invention is known as 'Selective Dissemination of Information'. But so far, our universities had no taste of it. The consequence is poor performance by the faculty and students in higher education. Selective dissemination of information, which started as a fashion has now become an essential need. Certain surveys have revealed that merely for scanning output in fields like Physics, Chemistry, Engineering and Medicine etc., coming out in one year, individual specialist will have to spend 8 to 10 years. Can a scholar do so? Impossible is the answer. Hence, both manual and electronic ways have been adopted by using sophisticated software for identifying information of interest to users and for servicing of bibliographical details for the concerned users. On the details of SDI and its distinction from retrospective searching, the following account is given by Houseman :

> "In essence, SDI is the automation of a classical function of the library, that of informing the patron of new acquisitions that he might be interested in reading. What is unique about Luhn's approach is his suggestion that this service should be offered to a very broad clientele on an individual basis using computer information-retrieval techniques. A typical SDI service provides each subscriber with a periodic tailored listing of new documents that have been entered into the file and that are likely to apply to his work or be of interest to him as a professional. In such a system, each subscriber gets a different set of references, depending on his particular interests, as defined in his "interest profile".

SDI is a sister activity to retrospective searching, and these activities commonly exist side-by-side in the same center. There are, however, basic distinctions between the two in outlook and in operation that make SDI worthy of separate concern:

Purpose: The purpose of SDI is to cull new literature and announce it selectively to a larger user community, typically

made up of many hundreds, perhaps thousands, of individuals, while retrospective searching attempts to refer a particular person with a specific information needs to all the documents that the information centre has collected over the years that may bear on his problem. Ideally, retrospective searches are conducted prior to the inception of an investigation to provide state-of-the-art background, and also periodically during the life of the project as specific technical problems arise. SDI, on the other hand, is more of a news medium, continuously and automatically alerting the project leader and key members of his staff of new developments that may affect their work.

File size: For retrospective searching, the document file is typically very large compared to the number of questions asked in any one computer run—usually larger by several orders of magnitude. A typical search may be 30 queries against 300,000 documents. For SDI, on the other hand, the number of documents searched is commonly close in order of magnitude to the number of questions. A typical run on a mature SDI system might have about 500 queries (interest profiles) and 5,000 new documents.

File turnover: In SDI, the questions are relatively stable, requiring only updating as enrollment changes and user interests drift, while in each processing cycle the document set is completely different. In retrospective searching the situation is reversed. The questions change for each run, but the document set is merely updated.

Regular production of large print-out: SDI results in voluminous periodic print-outs weekly, semi-monthly, or monthly which must be mass-mailed to users. Efficient pre-addressing and packaging of output is important systems consideration, whereas this is not a serious concern in retrospective searching.

Feedback: SDI, often to the chagrin of library personnel, results in a great increase of document requests, particularly

following each SDI mailing. There is also considerable volume of other types of feedback to bc handled, including requests for profile revision, evaluation of citations etc. It, therefore, becomes important systems consideration to design the outputs so that minimum handling is required by both the user and the library staff.

These differences between SDI and retrospective searching manifest themselves not only in different work... patterns, but also in overall system evaluation and design."

Obviously, organisation of SDI service incorporates compilation of interest profiles of readers. From time to time, adjustments take place between the compilation of interest profiles, search of data, service to readers, satisfaction of readers, and updating of profiles.

In India, in the first half of the 1960s we were very much concerned about the absence of computers in our information services. Ranganathan and Srivastava published a paper in 1967 on this subject of accuracy and speed. The entire world, including Indian leadership in librarianship, was having its genuine doubts in mid 60s about the roles of computers in information services. But in the year 1978 a national seminar was organised at Bangalore, dealing with computer applications in bibliographical services. There were about 80 delegates to this conference and more than 30 Indian research institutions narrated their experiences on computer applications in bibliographical services, covering problems that they faced, and the ways that they adopted to encounter those problems. Just in about 10 years, a country like India could obtain success of high tune and quality in computer applications in information services. It is indeed very satisfying and one can hope that computer applications to bibliographical services, in various disciplines, avoiding duplication and covering the whole country through one unit on a subject, will grow more and more in the country as a whole.

It is also hoped that our universities will make a start in this direction for raising standards.

Apart from these sophisticated areas of our work for some specialists the value of traditional subject bibliographies to our general users is very great. Through subject bibliographies we are able to provide to our readers the actual span-out of which a reader can choose what he wants. It is generally seen that if subject bibliographies are not provided in a library, the reader does not progress and proceed further in his reading and learning adventures. He or she generally gives up the pursuance, at the earliest stage, unless the subject of study is of vital urgency and importance. Therefore, the librarians, have to be, not only aware, but active in seeing that subject bibliographies must become a part of our general services, and should not be the privilege of a selected few.

Dissemination of micro-thought to library users, with emphasis on the details of publications in periodicals and magazines must reach the library users periodically—may be, monthly or fortnightly or weekly, depending upon the nature of a library. The role of the digest of the magazine articles or 'Article Alert' could be compared with the role of a restaurant menu for selecting items of interest. When an article alert reaches a person, the person identifies in it, the articles of interest and makes determination to study some items, as one of the preferences for him during a busy week. Libraries which are not rendering these services for promoting use of periodicals should know that their heavy expenditure on periodicals does not get justified, because people ultimately do not properly use them. A librarian thinking that she has done her job, by making payments for journals, and by religiously entering the attendance on arrival of journals, shall be completely mistaken if ultimately the contents of periodicals are not used by readers. The situation is like preparing a cake laboriously which is ultimately not eaten.

The last and the most important method of providing library service, so that a society consumes most information, is through the use of mass media for promoting library and information services. It is very important that the network of television systems, radio programmes and newspapers are properly and extensively used in dissemination of information and library services. We all feel the need for putting more and more programmes of library services through the mass media of a country.

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CHAPTER 20

The People's University

The Public library is today's people's university providing for real learning by all. Due to explosion of information and its usage for all types of work, users have become helpless and they have to depend upon librarians and information scientists, because they cannot anymore obtain information directly. Also, if all information seekers undergo individually the processes A to Z for locating and obtaining information, they will be wasting their entire life and career and yet they will not be able to find what they actually need. Therefore, librarians and information scientists must come in to guide and assist specialists and generalists for locating their relevant information and for serving them with the information, for saving their valuable time. One does not know as to how the modern world of scholarship and research can exist in absence of the essential services of librarians viz., compiling and publishing indexes, abstracts, bibliographies, and accounts of recent advances in various fields. People generally do not realise the values of these services, for it is only their absence that can fully depict the

chaos. The role of a library is, in a sense, an extension of these essential services so that information and data-flow into the community are provided for the welfare of a society, for greater production in a society, for better utilisation of leisure, for continuing education and for all-round development through consumption of information. It needs to be emphasised that information is the greatest weapon for waging wars on illiteracy, poverty and inefficiency.

There is another well-established symptom. Any country today functions well or poorly in proportion to its ability to organise and disseminate information, and information is valuable only if it is accessible for frequent use in all walks of life in a society. The developing world has many challenges and conflicts to be faced by libraries in providing for information services. It has been fully proved that the *culture of silence* prevails in a country in the absence of information flow. For fighting war on poverty, illiteracy and ignorance, our weapons have to be *information* and *knowledge*. One need not possess the wisdom of a Solomon to realise that our failures in education, industrial and agricultural production, and in checking population growth etc., are due to the absence of proper consumption of knowledge and information, both to be distributed through the roles of a library. These are pressing social issues. We can see that the best minds of our generation are getting destroyed by the "telling and listening" system of education and due to lack of knowledge consumption by students and teachers and the society as a whole. As information has become one of the major factors of production, social welfare, prosperity and happiness, the library as a house of information has obtained newer and dynamic roles in a society. A library contains information, and information has to be delivered to the society.

Educationists should successfully convince our ruling politicians, authorities in bureaucracy, educational administrators and planners all over the country that *Library and library services*

are essential for the development of our society. We have to effectively convince all people who matter in the life of our nation that unless consumption of information through libraries becomes a general way of life, progress and development is sure to elude us. The second important concept that we have to convey to all concerned in power is that, if libraries are important in information dissemination, the success of library and information dissemination must depend upon the human resources—the quality of people working in libraries, their status and their respected place on the scale of values in our society. This understanding is generally missing in a developing society, and most people in power are willing to concede some importance to libraries but they fail to give due place to people behind libraries, i.e., librarians. Our failure to give due place to people behind an important institution is the main reason for the very failure of the institution. This is the first Law of Management Science.

A librarian today is no more a handicapped, partially educated, prim and bespectacled person, holding only a bunch of keys and charged with enforcing the rules of custody and silence. Instead of remaining a mere passive storer of the ancient days and the provider of documents and/or information, as she or he was before the Second World War, the modern Librarian now participates in the information cycle as a dynamic and catalytic agent—as a consultant on ideas. She or he stimulates intellectual curiousity and has become an unavoidable, useful specialist in information needs and supply between "Database" and consumers of information. Professor Bell's "Post-Industrial Society" is synonymously known as "*information society*" where the basic resource is "*knowledge*". In this society, libraries and librarians have great responsibility, as well as serious threat to govern information flow. According to the features of formation and dissemination of knowledge, libraries and librarians will have to be leaders, rather than followers in the information industry and technology, and in the consumption of information.

Today, the single largest difference between the societies of the North and those of the South is, that the former consumes information the most, and the latter uses information the least. The libraries of the Earth, accordingly, are at different stages of evolution and revolution. In some countries, very soon books will be published by computers and familiar card catalogue will change into video display tubes; and in certain other countries publication of books is still in primitive styles, and even the traditional catalogue cards do not exist. However, both types of libraries need to serve their societies with information services.

Our society should realise the role of the library and librarians as agents in the game of information consumption.

Publicity is nothing but a part of salesmanship. Perhaps, the lonely 'Sanyasi' is the only person today whose livelihood is not dependent on the application of the principles of salesmanship. But he too publicizes his being a hermit. It is a story of the past to wait for customers' pressing needs and to sell only to those who come to a shop. Nor do commodities, good or bad, anymore sell in the absence of proper publicity. As information today is one of the factors of production, our libraries should be charged to disseminate information by adopting proper publicity methods. Library publicity is salesmanship for social welfare, minus the general element of profit-making in sales. It tries to serve all levels of society with information and know-how, the basic factors in production and welfare. To repeat, due to the knowledge explosion it is no more possible for a knower to know everything by himself directly. He cannot reach the containers of knowledge unless he takes the assistance of an information station, viz. the library etc. and the librarian.

In our efforts to make consumption of knowledge a strong habit in our country through libraries, we must learn something from a great feat of salesmanship. About 40 years ago, consumption of tea in India was not common. Drinking tea was a privilege only of a few sophisticated families. Some tea

producing magnates of India got alarmed about the phenomena of greater production and lesser consumption in the country. In order to sell more they had to adopt the policy of reaching out. They recruited temporary staff in various cities of the country for distributing tea, free of cost to each family, at the rate of one cup of tea for each member, both in mornings and in evenings. People drank tea free of cost for about 6 months. Then, suddenly, the persons distributing free cups of tea, disappeared. Obviously, before disappearing, they saw to it that tea leaves were stored in grocery shops of a town. So, the result was that the population started thereafter buying tea for consuming it, as addicts. Could such salesmanship be adopted with the help of our Government, the Bureaucracy, Educational Administrators etc. in our country for dissemination of information through libraries. Librarians and libraries will obviously be the team for the proposed distribution of information and it is certain that they will not disappear, like the free tea distributors after six months. Instead, they will find their permanent roots in the general welfare of our society, for its all-round development through dissemination of information. The librarians in a society, in servicing information, must seek inspiration and guidance from Lord Hanuman, the archpriest of service, in Indian mythology, who says:

अनिर्वेदः श्रियो मूलमनिर्वेदः परं सुखम् ।
भूयस्तत्र विचेष्यामि न यत्र विचयः कृतः ॥
अनिर्वेदो हि सततं सर्वार्थेषु प्रवर्तकः ॥
करोति सफलं जन्तोः कर्म यत्तत्करोति सः ।
तस्मादनिर्वेदकरं यत्नं चेष्ठेऽहमुत्तम् ॥

"Hope is the root of all service. Try again. I will, wherever I have not yet tried. Hope is the greatest happiness. It is hope that always directs us in all our endeavours. It is hope which brings all the efforts of beings to fruition. Therefore, I shall continue my hopeful attempts."

The librarians, like Lord Hanuman, should continue for hopeful attempts until our society really starts consuming information, fully and properly, in all walks of life. We should be persistent and continuous in the services and perform them with devotion.

Libraries in India today are "low energy" processes. But, for the development of the country it is an essential prerequisite that libraries should become "high energy" institutions providing for consumption of information by all. Once hunger for information is generated in a society, the sluggish individuals as librarians will be replaced by dynamic information scientists in our profession.

Finally, "THE NEED TO KNOW" will continue to grow with each decade that passes by. Be it supporting academic pursuits or daily information needs of citizens or constant information demands of government and industry, LIBRARIES WILL FULFILL THE NEED TO KNOW. Library as an educator, and as a "People's University", is bound to emerge in the Third World as well, fully covering the functions for all—of story-telling to kids; assistance to regular school children; a place for drop-outs to go in for self-learning at their own pace; and for learners in formal education at different stages. For all, a modern public library serves the need for life-long continuing education. It serves these clienteles through books, paintings, music, young adult needs in science and industry, social welfare, health and population planning etc. In brief, 'The Public Library Movement' generates a knowledge consuming society.

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EPILOGUE

An Analysis of the Draft National Policy on Education

Each oultural group has its peculiar set of characteristics. India certainly has its own rich culture, values and weaknesses. We also have our own styles of total work and approach. These styles are very well known to us and to people in other cultures and societies. If, say an Icelander, is very good in theoretical thinking and in advising what should be done, but does not make much offort to successfully implement his plans, friends and neighbours call such a person an arm-chair Indian philosopher. This is our reputation in the community of nations, and the sector which still truly lives upto this reputation is that of education in India. So there should be no doubt that many valuable reports and recommendations came from brilliant teams led by leaders of rare genius like Radhakrishnan, Mudaliar, Kothari etc. These reports found permanent settlement only on the lapse of our bureaucracy. They never reached to the agents in the field of education—the teacher or the professor. On reading these reports one finds platitudes, desirable reforms and principles. They did not contain detailed models. Major and minor steps to be taken were not elaborated and contours were not charted. Since 1947, or even before, no one ever said that the emphasis should be on *teaching* and not on *learning*. But all these years, in reality, the peculiar act of teaching, not containing much of learning had been in vogue. In 1979, the Ministry of Education and the Parliament may initiate a policy having emphasis on learning and not on teaching. But the nation should be sure that

even in the year 2000 A.D. the emphasis on teaching will not lose its quantum nor real learning will become the affair of the educational process. The *status quo* will not he changed much unless details of the models for action hy all the components of education are comprehensively worked out for each stage and each subject. The medieval practice of the elderly and the wise commanding certain things to be achieved, without mentioning methods and details, has now been replaced hy the obligation of the wise and the experienced to prepare models with details for application by all those concerned.

How the sale of a particular commodity will be promoted by millions of sales agents is generally an item on the agenda of the meetings of hoard of managing directors. Let us recall how we managed matters like 'General Education,' 'Tutorials,' 'Book writing nnd production schemes','Teaching and curriculn reforms,' 10+2+3, etc. All these attempts failed in practice hecause they were like medieval commands without any touch of modernity and minus comprehensive briefing kits. Follow up and evaluations were nominal. The main scene of nctivity was not the academic relation hetween teacher and student, but the Ministry of Education or the Committee rooms of the University Grants Commission. The idea did reach the University Offices. There, the full stop was applied. All schemes for practical purposes found class-rooms out of bounds. A similar exercise of evolving a new policy on education is on, due to the enthusiasm of the present Minister of Education in the shape of "The Draft National Policy on Education". The details of the new policy are more or less the same as before. It should not be surprising if the authors of the new draft policy are the same persons who authored earlier policies and reforms. The difference, of course, is that while earlier policies are in waste paper baskets or gathering dust on shelves, perhaps their authors continue to get commissioned for drafting new policies for adoption. There is no harm if most of the expert advisers are the same as for the earlier efforts. The harm will certainly be enormous if even the new policy meets the

fate of earlier ones because it lacked comprehensive details, step by step illustration of implementation and provision for the evaluation and control over the implementation. The details of Draft Policy appeared in the press in the middle of April 1979, when this book was already in the press. Hence, an attempt has been made to analyse the details as reported in the press. The spirit of the policy is first stated and then commentary has been offered in the form of loud thinking on the policy items.

Draft Policy Item:

The content of education at all levels needs to be recast so as to make the education process functional in relation to the felt needs and potentialities of the people. Emphasis should shift from teaching to learning, the role of the learner being more crucial.

Commentary:

This policy statement will be endorsed by all concerned, not only in India but all over the world. Indian educationists, teachers and students are aware of these phenomena since last thirty years. Therefore, it will be nothing new if this clause in the Draft Policy is ultimately adopted. What is needed, and is continuously eluding us, is the identification of the details of the *contents* which will make the education process functional. Also, we need to identify at each stage what factors will place emphasis on learning and not on teaching. Merely by saying that the emphasis should change, will not bring this about. We have experienced the failure of efforts made so far.

The emphasis on learning, as against the traditional emphasis on teaching, is the result of great educational revolution and research over decades, if not centuries. It compares with the state of splitting of the atom. It needs its own environment, some serious homework on the part of teachers and educationists and leadership from authorities in schools, colleges and universities. It also requires strong reading and learning habits to be cultivated in schools. It requires the availability of books other than text-books. No nation is able to cultivate reading and

learning habits only through rigid and dull text-books. Reading habits are cultivated through children's books and general books. Our academic community continues to depend on imported books for higher education. The first item to be attended to for cultivating reading and learning habits is to produce children's literature upto grade twelve, and to run public and young adults libraries in each locality for children who are practically starving academically in the absence of books for readers between the age group 4 and 18. Availability of books after 18 years of age is meaningless, if books are not provided to educands at the elementary and secondary stages.

Also, unless the school library takes up its teaching role, as school libraries have done in other countries, the emphasis cannot be shifted to learning. The emphasis will continue to be on teaching. Shifting the emphasis to learning from teaching will be impossible, unless library, librarian, and books also share academic roles in school education. We should not be surprised to know that our previous Minister of Education was unable to appreciate the academic role even of university librarians. If the king of educationists in the Minister of Education of a country has no appreciation for the academic roles of librarians, and therefore of libraries, in modern times, how can that nation shift the emphasis from teaching to learning?

Use of educational technology by educands is also necessary for shifting the emphasis from teaching to learning. Group discussion between educands should find a greater place in education. There are many other steps to be taken for shifting the emphasis aimed at in the Draft National Policy on Education.

Draft Policy Item

The present system of education must be reorganised in the light of contemporary Indian realities and requirements. Subject to the nationally agreed basic concepts of freedom, equality and

justice, the system should be flexible and responsive to varying circumstances.

Commentary

Reorganising education in view of local realities and requirements should be done in any country. This call is nothing new. The nation has been trying for years to move in this direction, but so far not much has been achieved. Now, we are again going to pronounce them in Parliament in order to seek its approval as if these had been opposed so far and could not be implemented due to lack of legal endorsement. The reason for our not being able to mould education in tune with local realities and requirements is not in the failure to conceptualise them, but perhaps in our failure to work out details of curricula and their implementation. We have to study international research projects which focus on local needs and realities. All systems of education all over the world claim to be working for freedom, justice and equality. There is nothing novel about these values for our education.

We have to first experiment, through pilot projects, how our endeavours suit local realities and requirement at isolated places in each state. If the results are favourable, only then, given to proper preparation, mass scale transformation should take place. Let the official circular letter alone not dictate transformation over-night in the absence of proper research study and experiments.

Draft Policy Item

The system must endeavour to narrow the gulf between the educated classes and the masses and overcome the feeling of superiority and inferiority and alienation. With flexibility in the choice, content and duration of courses, the student can choose his own time and channel of study and progress at his own pace.

Commentary

The phenomenon of the feeling of superiority or inferiority prevails in this country due to many reasons. The most important reason is the age old caste system. Poverty also makes people feel inferior and a little prosperity generates the false feeling of superiority. It is also seen that within the same caste and economic group, even out of the two brothers, if one fails to acquire a higher degree, the feeling of inferiority sets in. In all such cases alienation takes place. The provision of flexibility in the choice, content and duration of courses and the availability of study and progress at one's own pace, will minimise the number of drop-outs and may work towards preventing the setting in of inferiority complex in a person.

The Ministry 'of Education needs to be congratulated for adopting this idea in the Draft Policy. The efforts needed to reaeh the proposed end, and various means to be adopted, will require enormous efforts. Let us hope that these ideas 'do not ultimately remain as theoretical principles on paper. The provision of flexibility in various facets of education will require a great many reforms. We have to identify the steps and provide for them in a detailed manner.

Draft Policy Item

The highest priority must be given to free education for all upto the age of 14 as laid down in the Directive Principles of the Constitution. Education upto this stage should be general and not specialised, and should give pupils a confident command of language and subjects and a scientific attitude.

Commentary

The concept of free education for all will not face many hurdles because finance will be the only problem. But acquiring command over a language(s) will be possible only through extensive reading, writing and speakiog activities by educands. Availability of children's and general books will be essential. No nation

has been able to cultivate these abilities only through text-books. Our school and university teachers should be motivated to write good books for children and young adults in all disciplines. About fifty years ago it was believed that the theory of relativity was clear only to about half a dozen scientists in the world. These days, children learn the elements of this theory with the help of illustrations on just two pages and about a dozen sentences used to explain illustrations. Most of our existing children's books deal with Indian mythology and ancient stories. We have to widen the coverage to include Physics, Chemistry, Psychology, Biology and Sociology etc.

Draft Policy Item

The accent in elementary education should be on the development of personality and character. The content of education at this stage should include language, arithmetic, history, individual elementary sciences with a special reference to environment, cultural values, and physical education. The curriculum should necessarily include purposive manual labour contributing towards goods and services useful to the community.

The accent has to be on more creative and joyful activities rather than on formal instruction. Formal instruction must be reduced to the minimum and not exceed three hours a day.

Commentary

Inclusion of purposive manual labour in elementary school curricula, ultimately creating ability to do some work, will go a long way in making education utilitarian and interesting. School teachers will have to be trained properly to meet this challenge.

Draft Policy Item

It should be seen that in all schools, the medium of instruction is the regional language and fees and rules of admission are uniform.

The medium of instruction at all stages shall be the regional language except at the primary stage where it will be the mother tongue.

Commentary

This draft policy is most welcome. However, it will be a tragedy of high magnitude, if some private schools are forced to come down in standards for the sake of uniformity. Also, if some parents want to educate their children through English medium schools, they should have freedom to do so and the nation should not eliminate this provision altogether. Elimination of a particular type of schooling altogether is against the philosophy of democracy, tolerance and freedom.

Draft Policy Item

Adult education is an integral part of the 'Revised Minimum Needs Programme' (RMNP) whose thrust is to reach to the poor people, to coordinate all such programmes with developmental departments and to integrate them with area planning. The RMNP programmes, including adult education, cannot be the sole responsibility of one ministry, department or agency.

Commentary

The present Government deserves to be congratulated for its plans and actions on adult education. We must remove the existing culture of silence due to illiteracy in our country. All agencies, departments and ministries should participate in this project for human revolution. Modern libraries, having media other than books, need to be developed all over the nation to support the literacy acquired and also to prevent persons from lapsing into illiteracy or semi-illiteracy.

Draft Policy Item

The multiple agencies through which adult education programme would be conducted are: (a) existing school teachers,

(b) voluntary organisation, (c) local bodies such as panchayats and zila parisads, (d) youth and women's organisations, (e) developmental departments and (f) other social service deparmtents. Their involvement is to be ensured right from the beginning.

It would be desirable that such programmes as family planning, health and nutrition, child and mother care should be built into this programme.

Commentary

In addition, if we can provide a television set and a radio in each village or a group of villages, with suitable telecast and broadcast programmes, our efforts in educating people will acbieve greater success.

Draft Policy Item

Secondary education should be comprehensive both to be terminal for those who do not want or cannot proceed to further education, and provide a strong academic foundation for higher studies for those who show intelligence and aptitude for that education. Besides, the system should be so evolved that the students can opt out of one stream to the other as and when they desire.

Commentary

Working out of details and care in their implementation and evaluation will again be vital. We have to change the approaches of our millions of school teachers whose efforts alone will make or mar this draft policy.

Draft Policy Item

Both streams in secondary education should have a strong vocational component in the curricula and should be diversified to satisfy the needs of both the above mentioned streams. Obviously, for terminal secondary education, vocationalisation would have much larger component than for the other stream.

Commentary

Vocationalisation as a movement has only one major hindrance for its success—the wide gulf between the salary scales and social status of vocational tradesmen and persons working as white collar officials. This phenomenon was perhaps the mother of the caste system in ancient India.

Draft Policy Item

The curriculum for secondary education should be diversified and its burden made lighter so as to facilitate and help the development of the total personality.

Commentary

Schools and teachers will need comprehensive models and manuals covering details. Such documents must be prepared, published and made available to school teachers well in advance. There should be seminars and discussions by teachers after studying the manuals. Only then should the scheme be implemented.

Draft Policy Item

Vocationalisation for self-employment should take into account the need for supplementary inputs like credit, market, etc. and should also aim at extending the scope of possibilities of effective tie-up with the district industrial centres and other institutions being set up in the country.

Projects regarding estimated future manpower studies, feedback from the employment exchange and dissemination of employment information which is local and specific. Planning well ahead would help in developing appropriate vocationalisation programmes for various kinds of institutions and enterprises.

Commentary:

Supplementary inputs to make vocationalisation productive will be essential. Proper coordination between governmental units will be necessary.

Draft Policy Item

The proliferation of colleges and universities with little regard for the need for them or the resources required for sustaining them at acceptable standards is a matter for concern. Measures will have to be devised to relieve pressures on higher education.

Commentary

Already we are late in taking this measure. Measures should be taken immediately. But there should be alternatives available to diversify the youth force in different channels.

Draft Policy Item

Facilities for higher education may be expanded through correspondence courses, part-time and home-studies and by permitting private candidates to appear for public examination. Great restraint should be exercised in the establishment of new institutions. Admission to institutions of higher learning should be selective.

Commentary

We need to appoint a Commission to study the working of our institutes of correspondence courses. This Commission needs to study the ways and means for proper coordination between various schools on various facets of operations. Since correspondence schools depend on the efficiency of one and the same 'all India postal services', it will not make a difference if lessons are posted from Patiala or Delhi or Jaipur. The threat of numbers can be properly met by the modern printing press. It should also be examined if lessons could be printed and distributed by private publishers at subsidised or controlled rates. Rethinking needs to be done including on postgraduate subjects under the correspondence scheme. We need to evaluate the working of these institutions, not as an issue of autonomy of an individual university, but as national centres which are part of

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one coordinated movement. The University Grants Commission could be requested to formulate a national scheme in this area.

Draft Policy Item

It is preferable that the duration of the undergraduate stage of higher education be three years. This may be followed by courses of postgraduate study and research courses of study will be restructured and made interdisciplinary so that they can meet the varying requirements of students and also help in social transformation and national development. Participation in constructive programmes with a component of socially useful and productive work should be made an integral part of the courses of study at the undergraduate stage.

Commentary

The call for restructuring of courses and making them interdisciplinary in nature is familiar to our ears since the last so many years. But we never appointed task forces to come out with comprehensive details. Full-time task forces need to be appointed in about twenty disciplines to study international research findings and to recommend exact models for adoption all over the country. We cannot afford to have about 110 qualitative exercises on various subjects in an equal number of universities. It is not possible. Even if it is possible, it will be a great waste. In fact, over hundred universities cannot give us the right directions and materials in this area of restructuring of courses.

Draft Policy Item

Universities will be encouraged to undertake fundamental and applied research especially in sciences relevant to the needs of national development in collaboration with national research laboratories, industry and other organisations.

Emphasis in research will be on industrial and rural development. Institutions will be expected to undertake advanced research in areas of vital importance to the nation, such as energy resources and technology for rural development.

Commentary

Research activity in universities needs the greatest care for avoiding wastage, repetition and non-utility. We need to compile five-yearly inventories of research completed by all agencies in the country so as to evaluate and record the costly efforts on research in the country. Research needs international coordination. Many developed countries are already involved in this effort through their specific regular common offices. A developing country like India cannot afford to neglect coordination and control both at the national and international levels.

Draft Policy Item

The educational structure will broadly comprise elementary, secondary and undergraduate stages of education. School education shall be of 12 years duration and will comprise the elementary and secondary stages. There will be a public examination at the end of the secondary education. The undergraduate stage of education may be of 3 years duration. However, where a university desires, it can have 2 years pass and 3 years honours courses.

Commentary

We do not know what the outcome will be if we have variations of two and three year courses in universities. Uniformity is not laudable only for the sake of uniformity. If 3 years undergraduate education can help in selectivity in admissions, in certain renowned universities, it will be a great contribution to higher learning. But many teachers will resist it because they will be guided by surface features and common and casual thinking on issues like equality, neighbourhood and other trivialities.

Draft Policy Item

In this area of technical education, an efficient national manpower information system is necessary, which should be developed within the next five years.

Commentary

Creation and operation of the national manpower information system in technical fields will be quite easy to develop and to operate efficiently.

Draft Policy Item

Linkages should be developed between agricultural universities and development departments to facilitate the transfer of new technology to villages.

Commentary

It should also be comparatively easier to develop linkages as conceived in this draft policy.

Draft Policy Item

The three-language formula will be implemented nt the secondary stage. It includes the study of a modern Indian language, preferably a South Indian language, in nddition to Hindi and English in the Hindi-speaking States and of Hindi in addition to the regional language nnd English in non-Hindi-speaking States.

Commentary

This is an old issue. Comprehensive studies and comments have been received on this scheme from the country as a whole. The fear is that while teaching three languages at a time, one may not learn any language properly. An earlier Draft Policy intends to give sound language abilities for shifting the emphasis from teaching to learning. Care needs to be taken that one draft policy does not interfere with the other draft policy.

Draft Policy Item

Facilities will be provided in schools for teaching English or a foreign language so that pupils can have direct access to the

specialised and growing knowledge in the world in their chosen fields.

Commentary:

While countries like China, the Soviet Union, and other countries are endeavouring to learn this international language, we have helplessly seen deterioration in the knowledge of this language all over the country. In higher education, the library books in the English language are not used by large majority of students. The sections of libraries having English language books have already become a sort of museum. What additional facilities will be provided for learning English and not only teaching of English language in schools? Let us wait for them with fingers crossed. If English medium schools are closed down, it is feared that the nation may not have English knowing persons after a few generations.

Draft Policy Item

The mode of evaluation should discourage memorising and should be comprehensive enough to cover the total learning experience in the curricular and co-curricular programmes.

Commentary

The implementation of this policy again requires a complete revolution in our education. How the element of memorising can be eliminated has been a task before us for three decades. But we have not succeeded. How we can succeed we do not know unless the teaching teacher is trusted to evaluate periodically and to declare results. The danger of possible misuse should not prevent us from trusting our community of teachers in the task of evaluation. In our three public examinations we have to adopt the objective type of question papers in order to eliminate memorising.

Draft Policy Item

Some schools notably "public schools" remain outside the system of public education. They should be brought under the

purview of the laws and regulation that govern the system of public education especially those relating to fees and content of courses.

They must have the regional language as the medium of education and uniform fees and rules of administration. The special rights of institutions administered by minorities will be given due recognition.

Commentary

A little variation in a society never harms. On the contrary it enriches the society. The prevalence of variation is proof of the existence of the great virtue of toleration. Uniformity in fees and content of courses will not damage the nation, but adopting the regional language as the only medium of education will not be in the interest of our nation.

Draft Policy Item

There should be no more than three public examinations during the entire course of education till the end of the undergraduate stage. These may be at the end of elementary, secondary and the undergraduate stage.

Commentary

It is possible to have only two or one public examination, because the draft policy proposes the limit of not more than three public examinations. Can some states reduce the number of these public examinations? Why can we not examine the possibility of granting only an attendance certificate in non-technical subjects at the undergraduatioo stage. All government employing commissions conduct their own examinations for recruitment. The universities cao conduct admission examinations for postgraduate studies io the place of conducting graduation examinations. This bold step will provide selectivity in undergraduate admissions, self-study will obtain a greater importance

and memorising will disappear and emphasis on learning will replace stress on teaching.

Draft Policy Item

The curriculum of teacher-education at the elementary and secondary stages will be suitably changed in order to enable the teachers to play their proper role in reforming education.

Commentary

Curriculum of teacher-education should include book writing programmes for children and young adults. School teachers have plenty of leisure as compared to those in other professions. The involvement in writing interesting books for young adults will keep school teachers academically alert. They will themselves continue to read and even the financial gain will also come. Academic habits will be cultivated in the nation.

Draft Policy Item

Government are aware of the valuable contribution to the country's composite culture that can be made by institutions run by religious and linguistic minorities and recognise and uphold their right to establish such educational institutions of their choice and administer them in accordance with law, in order that the goal of an integrated Indian community is achieved.

Commentary

This assurance will strengthen the secular atmosphere. The backward minority groups will continue to live in their own way resulting in both advantages and disadvantages.

Draft Policy Item

Government expenditure on education in the country has steadily grown and is now of the order of Rs. 2,800 crores per annum. A larger outlay will be needed to implement the policy outlined above. However, efforts must be made to realise the objectives through exercise of economy, more effective utilisation

of existing resources and additional outlays and programmes such as food for work.

Commentary

If affairs of education remain the same, the tax payer has the right to request reduction in this figure instead of granting a larger outlay. Formulation of policies alone should not allow increase in outlay for the nation has already seen numerous good policies failing at tbe implementation stage.

Draft Policy Item

Fees may be charged in secondary and higher education stages from those sections of population who are in a position to pay at rates which bear a reasonable relationship to the cost of providing education.

Commentary

The other way of stating this policy is to state that freeships and scholarships will be granted to deserving students of economically backward sections. The manner in which the draft policy has been formulated is not in good taste with regard to the long suffering middle and service classes. These classes have their own great roles of responsibility in the affairs of the nation, being the most articulate classes.

Draft Policy Item

Support from local communities in cash and kind should also be encouraged on a wider scale than is done at present.

Commentary

The local community should be allowed to run its own schools, colleges and even universities in the manner they wish as a group or society. Private universities can show new paths. They may also influence for good our state universities. Why should we not have a mixed approach to education as well?

Draft Policy Item

The Government of India will review every five years the implementation of the National Policy on Education.

Commentary

We need contsantly to review the progress and regulate the affairs of reform and change. Getting together only after five years is merely a futile exercise of comment on the verbal plane.

This attempt at analysing some aspects of the draft policy on education is not more than a loud thinking. There should be no doubt about upholding most of the policies in theory. But the real success of these policies will be in their proper and accurate implementation, and here we have always failed in the past. In the absence of proper preparation of details at the national level by task forces, their publication in manuals and handbooks and discussion among teachers for their implementation, we cannot hope for the success.

In 1976, the Indian population was 606,200,000. As per 1971 census about fifty percent of population was below nineteen years of age. According to this percentage the children population upto nineteen years of age in 1976 should be over three hundred million. We have to provide for their reading and learning habits. The need of the modern man is a kind of versatility comprising knowledge of language(s) and some elements of Religion, History, Philosophy, Law, Political and Social Thought, Medicine, Music, Painting, Architecture, Biology, Physical and Chemical Science etc. If a person born in modern times does not get these knowledge he is certainly at a disadvantage. These needs are not only that of a gentleman, but are fundamental rights of the common man. But persons who travel upto universities and even obtain the degree of doctor of philosophy do not learn the above mentioned elements of versatility. Even people joining the professoriate and positions of power do not develop these elementary versatile knowledge. The attempt for versatile

accomplishment, through the cultivation of intellectual qualities and talents, should become a movement also in our country through various media including the printed page. Since everybody cannot afford to own individually various media including the printed page, there is no way except to develop free libraries all over the country; Creation of modern free libraries as 'KNOWLEDGE CENTRE' in each locality will give dividends very soon. This will be the major way to take our country out of the prevailing culture of silence. The partial cultivation of learning among the official and merchant classes has been provided since last over hundred years. But this learning is degree and job oriented. Since learning materials are not available from modern institution of free libraries in most cases the task of learning stops after examinations are over. A common person cannot spend even ten rupees a month on learning materials because more important items for survival in the family budget get greater claims. If a nation is not provided facility of free books and other learning media through organised libraries, learning shall not grow in such a society. After being able to feed the population, human cultures postulated, "Better never born than be ill-bred".

APPENDIX

Development of Higher Education in India
A Policy Frame

(University Grants Commission, New Delhi)

SECTION I

Objective

1.01 The main objective of this paper is to suggest a policy frame for the development of higher education in India over the next ten to fifteen years. As education at all stages forms an integrated whole, and as the university has a significant role to play in school and adult education, this task has been attempted against the background of a perspective for the development of education as a whole during the same period.

SECTION II

Development of Education in India

2.01 *Achievements and Failures :* The history of Indian education is a picture of both light and shade, of some outstanding achievements alongwith many outstanding failures. As a result of the system of education that we have developed during the last 150 years, we have now more than 120 universities (or similar institutions), 4,500 affiliated colleges, 40,000 secondary schools and 6,00,000 elementary schools, 3.5 million teachers, 100 million students and an annual expenditure of Rs. 25,000 million, which is next only to that on defence. It has given us a high level

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trained manpower whose size is the largest in the world and the top-levels of which are comparable to those of leading countries in the world. It is this manpower which now provides the key-personnel in all walks of our national life, and also enables us to help several other developing countries.

2.02 Unfortunately, the system has also developed three major weaknesses.

(1) It still continues to be dominated by models and value-systems adopted during the colonial regime. For instance, it lays greater emphasis on narrow individualism, unhealthy competition to the neglect of social good, verbal fluency (especially in English), and mere acquisition of information, while it neglects social objectives, co-operation, manual work, training in skills and building up of character. It places an almost exclusive emphasis on the formal school (with its single-point entry, annual sequential promotions, insistence on full-time attendance, and almost exclusive use of full-time teachers), and neglects both non-formal and recurrent education. The educational institutions function in isolation from the community as well as from one another. The system is a gigantic monolith, very difficult to move or change; and in spite of its achievements which are by no means inconsiderable, it has proved itself to be inadequate to meet our national needs and aspirations.

(2) The system maintains a set of double standards. A small minority of educational institutions at all levels is of good quality and compares favourably with those in developed countries. But access to them is *selective* and is mostly availed of by the top social groups, either because they can afford the costs involved or because they show *merit* which, on the basis of the existing methods of selection, shows a high corelation with social status. But this core of good institutions is surrounded by a large penumbra of institutions where although there is *open-door* access, the standards are poor. Consequently it is in these institutions that the large majority of the people including the weaker sections

receive their education. This dualism leads to undesirable social segregation and to a perpetuation and strengthening of inegalitarian trends in our society.

(3) Even in quantitative terms, it is mainly the upper and middle classes that are the beneficiaries of this system. Sixty per cent of the population (age 10 and over), which is still illiterate, has obviously received none of its benefits. Of every 100 children of six years of age, 20 never go to school, 55 drop out at an early stage, so that only about 25 complete class VIII. 70 per cent of the seats in secondary schools and 80 per cent of the seats in higher education are taken by the top 30 per cent of income groups.

2.03 What the system needs, therefore, is a drastic overhaul: a transformation of its character, through the introduction of a modern scientific outlook and other essential measures, to suit our national needs and aspirations: a substantial improvement of standards; an extention of its coverage so that the education of the people becomes, not a peripheral pursuit, but a central objective. It is in these three main directions that educational reconstruction in India will have to be vigorously pursued in the years ahead.

2.04 *Transformation of the Educational System:* Perhaps the most urgent and significant reform needed is to transform the value system, the basic structure and processes of the educational system, to make it flexible and dynamic, and to move in the (ultimate) direction of providing opportunities for life-long learning to every individual. This transformation will emphasize ethical values and human welfare enriched by science and technology. It will also imply the shifting of emphasis from teaching to learning from the individual to social objectives, and from mere acquisition of information to the development of skills and character formation based on knowledge. There would be multiple points of entry, flexible and student-oriented curricula, an equal emphasis on all the three channels of study (full-time, part-time or own-time), use of all the teaching resources of the

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community (both human and institutional) rather than depending only on the schools or professional teachers. It would imply of the provision of every facility for recurrent education to that an individual can join or step off the formal system as and when necessary, adopt any channel of study that suits him, and learn at his own best pace and from whomsoever he chooses; work and education (which will be closely linked to productivity) would run concurrently throughout the life of an individual; and education and development would be linked together, education assisting socio-economic transformation and participation in programmes of such transformation, becoming a medium of education itself.

2.05 *Improvement of Standards:* The standards of education need to be defined in the wider sense of the all-sided development of the personality of the individual and his commitment to social objectives; and these would have to be substantially improved and continually raised to suit the changing needs of the country. The system of double standards in educational institutions—one for the rich and the well-to-do and the other for the large majority of the people—should be done away with. All children, both rich and poor should rub shoulders with each other in a system of common schools at the elementary stage; and in all post-elementary education. Access to the pace-setting institutions should be available to all talented children, irrespective of their social or economic status. Methods of identifying talents by test which do not discriminate against children from disadvantaged background should be devised; and a preference should be given to those from disadvantaged backgrounds even if their *'talent-rating'* is lower. For such children, special remedial coaching and training will have to be provided, and the appropriate methodology evolved with care. It is true that the maintenance and improvement of standards would need physical inputs, such as good teachers and better learning tools and facilities. But they depend more basically on discovery and cultivation of talent and the creation of a climate of dedicated hard work in all educational

institutions. It is these programmes that need to be developed on the basis of a high priority.

2.06 *Expansion:* If the coverage of the educational system is to be improved and if the large majority who now remain outside it is to become its principal concern, high priority will have to be given to the following three programmes:

(1) *Adult Education:* The education of adults has received very low priority so far. But in view of the fact that it yields rich and early dividends, it should be accorded the highest priority in the years ahead and even among adults, the education of the large number of poor and illiterate persons should receive the utmost attention. The main objectives of this programme should be to educate and mobilize the masses and to involve them meaningfully in national development. It should also strive to make all adults (particularly in the age group 21-35) functionally literate, and lay the greatest emphasis on the non-formal education of youth (age-group 15-21). A massive programme of motivating adults and enthusing and training voluntary workers and institutions will have to be developed for the purpose.

(2) *Universal Elementary Education:* The objective of this programme should be to provide free and compulsory education for all children (age-group 6-14). The task is very difficult because the non-attending children now consists mostly of girls and children of scheduled castes, scheduled tribes, landless agricultural labourers and other weaker sections of the society. An early solution to the problem, which is closely related to that of adult education, needs a deep political commitment, a mass movement, and a large investment of resources. It will also be necessary to bring about a radical transformation of the existing educational system by the introduction of a multiple-entry system, part-time education and use of non-professional teachers. In addition to the existing channel of full-time formal education in the age group 6-14, which will have to be strengthened and expanded, part-time classes would need to be run for children in

the age group 9-14 who are required to work and do not, therefore, go to school, or drop out of it at an early stage. The principle to be followed will be that every child shall continue to learn from the age of 6 to the age of 14 on a full-time basis, if possible, and on a part-time basis, if unavoidable for economic reasons. The standards of elementary schools should be improved, school timings and vacations suitably altered, and the programme of free midday meals expanded so that their attracting and holding power is substantially increased. The content of elementary education should be radically altered by the introduction of socially useful productive work and social service as integral parts of education and by relating the curriculum to the local environment. The common school system of education should be adopted to promote social cohesion and national integration. Side by side, low-cost programmes of pre-school education should be developed, especially for the children of the poor in rural areas and urban slums, with the use of local personnel and materials.

(3) *Special Facilities for Post-elementary Education:* The access of a large majority of people, and especially the poor, to secondary and higher education should be increased. From this point of view, the special facilities which are now given to scheduled castes and scheduled tribes should continue and should generally be extended to all people below a prescribed income level, irrespective of caste, religion or sex. Special efforts should be made, at all stages of education, to discover talented children from the economically handicapped families, and as this talent is our best national asset, they should be treated as wards of the State and assisted, through scholarships and bursaries, placement, individual tuition and guidance, to receive the highest education they are capable of.

2.07 *Secondary Education:* The significance of high standards in secondary education is obvious; it supplies the teachers for elementary education and the students for higher education and thereby controls the standards in both the stages. Yet, in Indian

education, secondary education has always remained the weakest link. This situation calls for immediate and vigorous remedial action.

2.08 The following measures are suggested for improving the *standards of secondary education:*

(1) As in the new pattern, elementary and secondary education should cover twelve years so that secondary education can prepare for entry into work at a large variety of skilled levels and also send up more mature and better prepared students to the university.

(2) At present, there has been a very haphazard growth of secondary schools, many of which are of such small size that they can be neither economic nor efficient. It is necessary to plan the location of new secondary schools with great care and to rationalise that of the existing ones to the extent possible. Efforts should also be made to see that all secondary schools reach an optimum size, which makes them economically and academically viable.

(3) The curriculum of secondary schools should be drastically revised. Work and social service should become its integral parts. It is necessary to distinguish between the work-load of students and standards of attainment. Today, the work-load is heavy and the standards low. Good planning, good teachers and good methods of teaching and evaluation can reduce work-load and yet improve standards, and this is the direction in which we should work. Till class X, there is need to adjust the curricular load in order to find more time, not only for work and social service, but also for physical education, games and sports and cultural activities so as to develop a complete personality. In class XI-XII, the higher secondary level, adequate steps towards differentiation and diversification should be taken and the programme should be intensive enough to prepare students either for the university or for entry into the world of work, as the case may be. It is also necessary to emphasize that every thing included

in the curriculum need not be a subject for examination. In fact, all curricula should have some elements which exist for their own sake and are not related to examinations.

(4) Great emphasis should be laid on teacher improvement, provision of adequate facilities for it (including improved teaching and learning materials), adoption or progressive and dynamic methods of teaching and evaluation, and creation of a climate of dedicated hard work.

(5) Every effort should be made to identify talented children at the elementary stage and they should be assisted in all ways possible and necessary, including the provision of bursaries, to continue their education at the secondary stage.

2.09 The present system of public (and similar) schools run by private bodies, charging high fees which restrict them to the children of the affluent, is inconsistent with an egalitarian society. There is a need for Government to establish many more quality schools so that talented children from poor families may be placed there, and also to require every existing institution of this kind to admit at least half of its students from among the talented but economically handicapped students, and to give freeships to them.

2.10 Another major programme at the secondary stage which needs, attention on a priority basis is *vocationalization*, which will give us middle level semi-skilled and skilled manpower in all walks of life. The programme will link education closely with productivity and what is even more important, it will reduce pressures on the universities. In the present educational system, each stage is treated as a preparation for the next higher stage of education. Instead, the curriculum at each stage must be designed keeping in view the fact that the stage may be terminal for a large percentage of students. Vocationalization will, therefore, have to be attempted at three levels: (1)at the end of the elementary stage; (2) at the end of class X; and (3) at the end of class XII. It should be clearly related to the employment opportunities available (including programmes of self employment) and should

be school based, industry/agriculture-based, or of a sandwich type, depending upon the circumstances. The ultimate objective should be to divert about half the young persons to appropriate vocational courses. The successful implementation of the programme will need the cooperation of industry and agriculture, and active participation of all agencies of Government. It must also be emphasized that the extent to which students will opt for these courses will depend upon the development of the economy and the availability of jobs, the narrowing down of the wage-structure between different levels of workers and especially as between the blue and white collar categories, the extent to which the admission to the academic course preparatory to the university becomes more selective. It will also depend on whether the students who opt for vocational courses are assured of opportunities for further education and vertical mobility, and on the discontinuance of the present practice of prescribing higher qualifications than actually required for performing the duties of middle level jobs.

2.11 These significant reforms will convert the existing system of education into a new system suited to our needs and aspirations, and will also involve a major socio-economic transformation. Obviously, the development of higher education and research over the next ten or fifteen years will have to conform to the directions of this educational and social transformation. What is even more important, the university system itself will have to play a leading role in bringing about this transformation. The details of this programme will be discussed in the next section. But before leaving the subject, we would like to emphasize one issue; no educational transformation can be brought about in a vacuum because education is a sub-system of the society as a whole and because the social and educational structure support and strengthen one another. Ours is a dual society in which economic and political power is mainly concentrated in the hands of a small class at the top. This reflects itself in a dual educational

system in which the access to the best educational institutions at all stages is mostly limited to the same top class. It is this dual educational system which strengthens and perpetuates our dual society. If this vicious circle is to be broken, action on the educational front alone will not be enough and will not succeed. What we need is a radical, simultaneous and complementary action, for educational as well as social transformation

2.12 While implementing the above educational reforms, therefore, we must also mount a big programme of social, economic, political and normal action to reduce poverty and inequality. This will include the minimization of all forms of exploitation, imposition of limits and curbs on the consumption of the rich and well-to-do and provision of a basic minimum standard of living to all the people through an emphasis on the increased production of goods and services needed by the common man, a guarantee of gainful employment to all able-bodied persons willing to work, and the organisation of nation-wide and efficient public distribution system of foodstuffs and other essential commodities. It is also obvious that this attempt at a simultaneous educational and social transformation will not succeed unless we also develop a mass movement in support of these objectives and involve the people themselves in these programmes. The backdrop of a nation-wide and comprehensive mass movement and mass involvement thus becomes indispensable for the educational advance of the people as well as national development.

SECTION III

Development of Higher Education and Research

3.01 *The Role of the University System:* The university system has important responsibilities to the society as a whole as well as to the educational system itself. The significance of the traditional functions, of acquisition, preservation, dissemination

and extension of the frontier of knowledge, the balanced education of individuals, and the training of high level personnel for all walks of life is obvious. But a modern university especially in a developing country like ours, has to undertake several other functions as well. It must, for instance,

- inculcate and promote basic human values and the capacity to choose between alternate value systems;
- preserve and foster our great cultural traditions and blend them with essential elements from other cultures and peoples;
- promote a rational outlook and scientific temper;
- enrich the Indian languages and promote their use as important means of communication, national development and unity;
- promote the development of the total personality of the students and inculcate in them a commitment to society through involvement in national service programme;
- act as an objective critic of society and assist in the formulation of national objectives and programmes for their realization;
- promote commitment to the pursuit of excellence;
- promote the development of science and technology and of an indigenous capability to apply it effectively with special emphasis on national problems; and above all
- contribute to the improvement of the entire educational system so as to subserve the community.

3.02 *Access to Higher Education:* Admission to post-elementary education should be linked to talent and aptitude. We should not also deny the right of an individual to life-long learning or to study to the highest extent he is capable of, although the state has every right to decide how its subsidy for such education is to be regulated on the basis of talent and social justice.

Our policy in relation to further expansion of all post-elementary (and especially higher) education has, therefore, to be based on several conflicting considerations. On the one hand, we cannot ignore the increasing demand for higher education from all sections of the people and especially from the weaker sections, who consider it an almost exclusive channel of vertical mobility. On the other hand, we cannot also ignore or under-emphasize some aspects of the situation such as the inability of the economy to absorb its products, the growing spectre of educated unemployment, lack of resources in men, materials and money which often makes expansion lead to dilution of standards, and the unacademic considerations that drive thousands of young persons to the universities.

The policy to be adopted in this regard should, therefore, consist of the following: (1) adoption of measures which will reduce pressures on the University system, such as effective vocationalization at the secondary stage, delinking most of the jobs from degrees, and changing the present recruitment policies which virtually make a degree a minimum qualification for any good job; (2) exercising great restraint in the establishment of new institutions, which should not be set-up (except in backward areas) unless their need is clearly established on sound academic considerations and adequate resources in terms of men, materials and money are available; (3) planning the location of new institutions very carefully and rationalising that of the existing ones to the extent possible; (4) adopting a policy of selective admissions to full-time institutions of higher education at first degree and post-graduate levels on the basis of merit with reservation of atleast half the seats for all weaker sections; (5) enabling talented but economically weaker students to pursue their studies on a whole-time basis by ensuring to them the full cost of their education through appropriate bursaries, for which funds may be raised from public and private bodies; (6) providing facilities for expansion of higher education through channels of —non-formal

education such as correspondence courses; and (7) opening Board and university examinations to private candidates to encourage self-study.

The policy outlined above will create the essential basic conditions for the proper development of higher education. It will also ensure that expansion of facilities in post-elementary education will not be at the cost of quality (which is what often happens at present), that non-formal-post-elementary education, where the unit cost of education is appreciably lower, shall be available to all who desire it and qualify for it, that the access of the weaker sections to secondary and higher education will increase rather than decrease, and that it would be adequately subsidised from State funds. The programme outlined above will largely depend for its success on the quality of leadership provided by university and college teachers. The terms and conditions of service should be attractive enough for some of the best minds in the country to join the profession. At the same time, the facilities for acquisition of further knowledge should be provided. Also, it will succeed better if there are adequate job opportunities for those who have not been selected, if the formal and non-formal channels of education are treated as equal in status for purposes of employment, and if due concessions (including age relaxations) are allowed to ensure that those who adopt a method of recurrent education (i.e. transferring themselves from school to work and *vice-versa*, according to needs) are at least not at a disadvantage in comparison with those who complete their education at one stretch.

3.03 *The Undergraduate Stage:* A major programme of reform of higher education is the restructuring of courses at the undergraduate stage to make them more relevant and significant, not only to the students but also to the nation as a whole by assisting social transformation and national development. It is absolutely essential that every undergraduate student should be given a grounding in four important areas: (1) a set of *foundation courses*

which are designed to create an awareness of areas such as Indian History and Culture; history of the freedom struggle in India and other parts of the world; social and economic life in India, including concepts and processes of development; the scientific method including the role of science and technology in development; alternative value systems and societies based thereon; Cultures of Asia and Africa (selected countries) and Gandhian thought; (2) a set of *core courses* which will give the student an opportunity to acquire a broad familiarity with some chosen disciplines, including a study of one or more of them in depth; (3) *some applied studies* projects/field activity which will form an integral activity of the course and will be carried out in the final year; and (4) involvement in a programme of *national or social service* for the first two years. This will provide a rounded and richer education. To get the full advantage of this reform, several important measures will have to be adopted. For instance, the courses should be diversified, especially to cover newly emergent and inter-disciplinary areas; a greater freedom should be allowed to the student, through the adoption of the semester system, to choose the courses best suited to his interests and capability; unit courses and modern and dynamic methods of learning and study should be adopted; and examination reform should be carried out with vigour and determination.

3.04 It is also necessary to provide liberal and well planned assistance for the improvement of affiliated colleges, which do most of the undergraduate teaching. From this point of view, the central programmes of assistance to affiliated colleges should be diversified and expanded. An effective machinery should be created at the State level for grants-in-aid to affiliated colleges, and the State grant-in-aid codes should be modernised and revised to bring about improvement of standards. Side by side, adequate and firm measures should be taken to improve the management of colleges.

3.05 *Post-graduate Education and Research:* The post-graduate stage assumes the highest significance for maintaining educational

standards and for programmes of development. As its objective is to take a student to the threshold of new knowledge, it is essential that the teachers and students at this stage are themselves actively involved in the creation of new knowledge and its techniques, i.e., in research. Every institution providiog post-graduate iostruction must, therefore, have competent staff actively engaged in research and adequate research facilities in terms of laboratory equipment and research journals. It, therefore, follows that the responsibility for post-graduate education must, by and large, be directly assumed by the universities themselves.

At present about 50 per cent of post-graduate students and about 11 per cent of research students are studying in colleges. While a few colleges have outstanding research and teaching departments, most of them are poorly equipped for post-graduate instruction. Their situation should be reviewed in terms of the norms established by the University Grants Commission, and those having the potentiality of coming up to the norms within a few years should be assisted to do so as soon as possible, while the others should discontioue post-graduate iostruction in the interest of standards. Collaborative efforts by colleges, which may not individually be viable uoits of post-graduate instruction but may be able to form viable units collectively, should also be encouraged. The University Grants Commission, Universities and State Governments will have to take concerted steps in this regard.

3.06 Other measures required for the development of higher education include the following:

(1) With the rapid increase in the number of universities there is a need to ensure that all the University Departments themselves satisfy the norms as viable units of teaching and research.

(2) While inter-disciplinary courses should be introduced at the undergraduate level also, special efforts must be made in this regard at the post-graduate and research level.

(3) Individuals, groups and departments in universities and colleges should be supported, on merits, in carrying out high quality research. Special encouragement should he given to collaborative research efforts hy a group, drawn from one or more departments, on the basis of pooled resources.

(4) High quality experimental research demands the development of indigenous instrumentation capability and culture. Efforts in this direction should be encouraged through support of research schemes and the creation of university instrumentation and service centres and regional instrumentation centres.

(5) While universities will continue to he involved in fundamental research, application oriented research, especially in collahoration with national lahoratories and industries need to he specially encouraged in universities. Both fundamental and applied research require the highest intellectual qualities.

Fundamental discoveries in science lead to technological advances, while progress in technology provides the scientists with sophisticated tools and instruments and enahles them to make fundamental discoveries. As such, both in teaching and research, it is necessary to see that the hest talent in the country is harnessed for the development of science and technology. Nor should we neglect the most modern and sophisticated technology which is very essential in certain areas such as heavy industries, defence, communications, transport, energy, etc.

(6) In order that universities may he able to contribute to the social development and change, they have to go outside the four walls of the classroom and get involved in a participatory understanding of some of the societal problems. Such research programmes as contribute to social development, especially to rural development, should be encouraged.

(7) While fostering knowledge of science and technology at the highest theoretical level and spreading it in the rural areas, there is a growing need to develop technology relevant to

emergent national needs. Such a development would also demand appropriate interaction between the institutions of higher learning and the productive processes and organs of society.

3.07 *Diversification:* As enrolments increase and the student community gets larger, it is essential to diversify the courses and models of higher education, and to create new processes and models to suit the emerging needs. In fact, we should move in a direction where institutions of higher education represent a very wide spectrum of which the classical type is only one, although an important illustration.

3.08 *Decentralization:* It is equally essential to move away from the existing system of the affiliating university or centralization of academic authority and external examinations. The system as it works creates very dilatory procedures. The rigidity of the affiliating system also deprives the good teachers of the opportunity to take initiative for creative, imaginative and more fruitful action. It is, therefore, absolutely essential to decentralise authority and confer autonomy, from the university administration to the university departments and from the universities to colleges. The existing bureaucratic and centralised structures or the universities have to be radically altered to avoid delays, to evade attempt at rigid uniformities, to create an elastic and dynamic system and to promote innovative initiatives and reforms.

3.09 *Autonomous Colleges:* The concept of autonomous colleges is of special significance in this context. Autonomy for a college implies that the college and its teachers assume full responsibility and accountability for the academic programmes they provide, for the content and quality of their teaching, and for the admission and assessment of their students. Unless this basic condition is first met, it will not be possible to tackle the problem of *relevance* satisfactorily or to diversify and relate curricula to local needs and conditions, and what is even more important, to give greater individual attention to the students on the basis of their

needs and aptitudes. This alone will make it possible for institutions of higher education to become comunities of tcachers and students engaged in an agreed and mutually satisfactory joint pursuit or trutb and excellence. However, it would bo necessary to ensure that the terms and conditions of service for teachers prescribed by the Government and the University Grants Commission continue to apply to these institutions, and that the institutions continue to subserve the needs of national integration and development. The concept of autonomous college does not imply permanent categorisation of an institution under a separate label for a higher formal status. It requires an institution to be continuously subjected, in order to justify its recognition as an autonomous college, to periodic reviews and sbould be liable to lose its recognition if the conditions of higher academic excellence as well as its contribution to society are not maintained at the expected level. In short, such a privilege will have to be continuously earned and sustained through performance. Over the years, we should move in a direction where autonomy becomes, not reward for excellence, but the minimum condition for the very existence of the college. It must also be emphasized that, in the interest of good education and in the larger interest of society itself, each institution has to seek its identity in its own unique fashion, consistent with its local situation and the academic perspectives of the local community.

3.10 As a step towards the development of this programme, it is necessary to survey carefully all the colleges in a district and to identify one or two colleges which can become academically viable through guidance, planning and financial assistance. These colleges should be assisted to realize their potential and given autonomy to develop new courses in relation to the needs of the local region and its development. The programme can, over the years, be extended to other colleges as they show a desire and potential to develop on these lines.

3.11 *Academic Freedom:* To be an objective critic of society is an important responsibility of the university system. This can

be discharged satisfnetorily only if the academic freedom of the teachers and students to express their views freely and fearlessly is adequately protected. This freedom also deserves to be exercised more widely and ably.

3.12 *Extension:* If the university system has to discharge adequately its responsibilities to the entire educational system and to the society as a whole, it must assume extension as the third important responsibility and give it the same status as research and teaching. This is a new and extremely significant area which should be developed on the basis of high priority. As can be easily imagined, the extension programme of the university system will fall into two broad categories.

(1) *Extension Services to Schools and Colleges:* The universities should work with the colleges which, in turn, should work with the secondary nnd elementary schools in their neighbourhood and help them to improve standards by in-service education of teachers, sharing of facilities, provision of enrichment programme for students and discovery and cultivation of talent. The development of a proper Research and Development (R & D) programme for the education system is also a special responsibility of the universities.

(2) *Extension Service to the Community:* The university system also has a great responsibility to the society as a whole. All universities and colleges should develop close relationships of mutual services and support with their local communities, and all students and teachers must be involved in such programmes as an integral part of their education. The National Service Scheme (N. S. S.) programme should be expanded and improved, ultimately to cover all students. The fundamental purpose of these and other student programmes should be to implant a spirit of cooperation and social commitment inter-related to moral development. It should be the obligation of the teaching community to give extension lectures to interpret recent trends in their fields to the community, to create scientific awareness,

to participate in adult education and workers' education programmes, etc. Universities can also help in the preparation of developmental projects for the community around them, including the rural community. Such involvement will also help in bringing greater relevance into the courses at the undergraduate and the post-graduate levels and into the research programmes.

3.13 *Standards:* It will not be proper to continue to judge standards, as in the past, on the basis of academic performances only. In view of the new concept of the roles and functions of the universities and the acceptance of research, teaching and extension as equally important responsibilities of the universities, standards of higher education will have to be judged, not only on the basis of the academic achievements of its alumni and teachers, but also in relation to their social commitment and their contribution to social and national development. Moreover, attempts will have to be made, on the basis of the highest priority, to improve standards. The programmes to be developed for the purpose will include faculty development, provision of essential equipment, buildings and other facilities and organisation of an adequate programme of students services. These will need considerable investment in men, materials and money. But even more importantly, they need commitment and competence on the part of the teachers, high motivation in students who should be selected for their capacity, and a climate of sustained and dedicated hard work. A selective approach, proper planning and concentration of resources are also equally essential to achieve good results.

3.14 The problem of the medium of instruction is of special significance in this context. At the undergraduate stage, the process of transition from English to regional languages is already well under way. It must be expedited and assisted through the production of the necessary text books and other learning and teaching materials. At the post-graduate and research stage, where the process is mostly of self-learning, a medium of instruction

is of less significance and what really matters is the capacity of the student to directly acquire the growing knowledge in the world in the field of his specialisation. It should be emphasized, however, that the growing use of the Indian languages increases, rather than decreases, the need to study English which will continue to have a significant place in our education. Obligatory passing in English should not be required at the undergraduate stage. Adequate arrangements should, however, be made for specialised intensive courses in English in every college on an optional basis.

Learning of the English language should be promoted not by way of creating an impediment for any student for this or by further studies but should be available as a positive help in the form of reading service at every stage of education, including the post-graduate level or even after that. English should be used for building knowledge and not for building status. If this role of the English language as a positive instrument of knowledge is accepted, then facilities for its learning in various forms and content should be made available to each group of students according to their own needs. This type of an approach will be an approach of service rather than subjecting everyone to a uniform pattern, irrespective of need.

At the post-graduate stage, the student needs to have a good working knowledge of an international language so that he may have direct access to the specialised and growing knowledge in the world in his own or other fields. Passing a competence test in English, may be required of a student seeking admission at the Master's level, depending on the needs of the field he wishes to study. Full encouragement should also be given to the study of foreign languages other than English.

Special groups may be appointed to examine the problem of switch-over to regional languages in the field of professional education.

3.15 *The Role of the UGC:* The co-ordination and maintenance of standards in institutions of higher education and research is a central responsibility. The UGC has been created by an Act of Parliament to look after this responsibility and empowered to take, "in consultation with the Universities and other bodies concerned, all such steps as it may think fit for the promotion and co-ordination of University education and for the determination and maintenance of standards of teaching, examination and research in Universities" (Section 12 of the UGC Act). To discharge this responsibility adequately, the UGC has to assume several roles and functions. For instance, it has a major role of providing leadership and impetus for reform and development. Towards this purpose, the Commission must continuously review the emerging problems of education, the status of teaching and research in different disciplines and the standards of teaching and research in the universities. It should through its committees and panels and other means evolve a consensus within the academic community regarding desirable changes in higher education.

3.16 It is the responsibility of the UGC to strive to provide leadership to the entire educational system and assist it to bring about the needed transformation. This can be done by encouraging the universities to play an increasingly active role in improving the quality of education in colleges and schools, by intensifying the R & D effort in education and by promoting the philosophy of extension whereby teaching, research, service of the community and the building of character become an integrated activity.

3.17 The UGC has to play an increasing role in promotion of high quality research in universities because of the symbiotic relationship between teaching and research. At the same time it must promote applied research which has an immediate impact on the social and economic conditions of the people.

3.18 The UGC should strive to remove regional imbalances

in the development of higher education in different parts of the country and to relate such development to the programmes of socio-economic advance and cultural growth of the people in the various regions.

3.19 The UGC should actively promote through the creation of an appropriate pattern of recognition and appreciation, the maintenance of values in the academic community so that its commitment to the pursuit of truth and excellence is enhanced and it is enabled better to discharge its responsibilities to society.

3.20 The leadership and catalytic role of the UGC has to be supported by the creation of appropriate organizations at the university and State levels. These would include a mechanism for surveys of undergraduate colleges in relation to well-defined norms and guidelines so as to ensure that further proliferation of sub-viable colleges is arrested, and for similar surveys of post-graduate colleges so as to ensure that they satisfy the UGC norms, and maintain certain minimum standards. It would also be necessary for the UGC to persuade the universities to establish academic planning, evaluation and implementation boards to look after the post-graduate and research programmes in a long-term perspective, and College Development Councils to advise and guide the colleges to improve their academic standards with the help of various UGC schemes.

3.21 *Conditions Essential for Success:* The system of higher education is now in a state of crisis, due to uncontrolled and unplanned expansion, inadequate inputs in terms of money, materials and talent, falling standards in a large proportion of institutions, weakening of student motivation, increase of educated unemployment, weakening of discipline and dys-functionalities created by the adverse effect of socio-economic problems, a lack of relevance, and significance, and because of undue political interference by subjecting universities to political and partisan pressures and lack of a national consensus in dealing with such situations. It is obvious that universities cannot function

smoothly without adequate support from the Government. This crisis continues to deepen with the passage of time and spreads, not only to the entire educational system, but back again into the society itself. If this crisis is to be resolved quickly and successfully, three basic conditions will have to be fulfilled:

(1) The Government should take hard decisions on delinking most of the jobs from degrees, provision of large additional investment needed to discover and develop talent, and to provide satisfactory conditions of work revision of recruitment policies, etc. It should also support the universities in taking hard decisions in selective admissions regulation of opening of new colleges, provision of satisfactory conditions of work and protection of university autonomy.

(2) The teachers and students should carry out their part of the responsibility through intensive efforts to improve standards and the whole academic community should strive to serve society, through substained, dedicated work, and commitment to the pursuit of knowledge, excellence, and national development.

(3) A nation-wide effort should be organised to achieve a simultaneous break-through on the social as well as educational fronts.

The tasks of educational reconstruction thus require an intensive, coordinated and collaborative effort on the part of all the agencies involved, viz., the Centre, States, public, teachers, students and administrators. Instead of trying to blame each other (and each one of these has its own share of achievements as well as failures), all these agencies should work together for bringing about an educational and social transformation on a scale commensurate with the size and complexity of our problems. If this can be done, there is no doubt that we shall soon be able to create a new educational system and a new society.

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I. Some Journals and Bulletins On Higher Education Containing New Ideas

(*Sequence—Name, Periodicity, Subscription, Publisher and Address, Editor and Circulations and Indexing Sources*)

A A B C Newsletter. q. $1.50. American Association of Bible Colleges, Box 543, Wheaton, IL60187. Ed. John Mostert. circ. 1,850.

A A C T E Publication Service. m. $25. American Association of Colleges for Teacher Education, One Dupont Circle, N.W. Suite 610, Washington, DC 20036.

A A H E College and University Bulletin. 1948. m. except Jul-Aug. membership (non-members $10.) American Assn. for Higher Education, One Dupont Circle, Washington, DC 20036. Ed. Bill Ferris. bk. rev. illus. circ. 10,000.

A A U P Bulletin. 1915. 4/Yr. $10. American Assn. of University Professors. One Dupont Circle, Washington, DC 20036. Ed. Lawrence S. Poston, III. adv. bk. rev. charts illus. stat. index. circ. 80,000. Indexed: Curr. Cont. Educ. Ind. P.A.I.S. SSCI.

A A U W Journal. 1882. 7/Yr. $4 to non-members. American Assn. of University Women, 2401 Virginia Ave. N. W. Washington, DC 20037. Eds. Jean A. Fox, Pat Kresge. adv. illus. index biennially. circ.180, 000. Indexed: P.A.I.S.

A C U Bulletin of Current Documentation (ABCD) 1971. 5/Yr. £1.70 ($5) Association of Commonwealth Universities, 36 Gordon Square. London WCIH OPF. Eng. Eds. Sir Hugh W. Springer & Tom Craig. Adv. bk. rev. bibl. circ. 2,100.

A G B News Notes. 1970. m. membership. Association of Governing Boards of Universities and Colleges, One Dupont Circle, Suite 720, Washington, DC 20036. Ed. Joseph C. Gies. bk. rev. circ. 19,000.

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A U T Bulletin. 1962. bi-m. contr. circ. Assn. of University Teachers. United House, Pembridge Rd., London W11 3 HJ, Eng. Ed. Laurie Sapper. adv. circ. 27,000.

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Acquainter. vol. 6., 1973. 10/Yr. $12. (Academic Consortia for Higher Education) American Association for Higher Education, One Dupont Circle, Suite 780, Washington, DC 20036. Ed. Lewis D. Patterson. bk. rev. circ. 2,500.

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Armidale College of Advanced Education. Bulletin. 1954. 2/Yr. Aus. $2.50. Armidale College of Advanced Education, Armidale N. S. W. 2350. Australia. Ed. Lionel A. Gilbert. bk. rev. circ. 800. Indexed: Aus. Educ. Ind.

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Athenee. (Text mainly in Dutch & French; Occasionally in English) 1911. bi-m (Sept-Junc. 450 Fr. Federation de I' Enseignement Moyen Offlciel du Degree Superieur de Belgique, Rue Laurent de Koninck 16,4000 Liege, Belgium. Ed. Jeanne Muyters. bk. rev. bibl. circ. 1,700.

Australian Journal of Advanced Educatlon. 1969. 3/Yr. Aus. $4 (Federation of Staff Association of Australian Colleges of Advanced Education) Pandns Publishing and Advertising

Service, c/o Business Manager, 172 Chetwynd St., Nortb Melbourne. Vic. 3051, Australia. Ed. A. J. Sampson. adv. bk. rev. circ. 4,000. Indexed: Aus. Educ. Ind.

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Anstralian University. 1963. 3/Yr. Aus. $4. Melbourne University Press, Carlton N. 3. Victoria, Australia. Ed. Dr. S. W. Cohen. bk. rev. cbarts. index. Indexed: Aus. P.A.I.S.

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Brown Alumni Montbly. 1900. m. (9/Yr) $4. Brown University, Providence, RI 02912. Ed. Robert M. Rhodes. bk. rev. play rev. illus. circ. 45,000.

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D. H. E. Data Briefs. 1974. bi-m. New Jersey. Dept. of Higher Education. 225 West State St., Trenton. NJ 08625. charts. stat.

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Educational Forum. 1936. 4/Yr. $7. Kappa Delta Pi Honor Society in Education, 121 Ramseyer Hall, 29 W. Woodruff Ave., Columbus, OH 43210. Ed. Jack R. Frymier. bk. rev. bibl. index. circ. 50,000. Indexed: Educ. Ind.

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Etudes et Carrieres. 1970. q. Office d'Orientation et de Formation Professionelle, Rue Prevost-Martin 6, Case Postale 226, 1211 Geneva 4, Switzerland. illus.

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Ford Foundation Letter. 1970. bi-m (7/Yr.) controlled. Ford Foundation, Office of Reports, 320 East 43 St., New York, NY 10017. Ed. Richard Magat. bibl. circ. 100,000. News of grants and program actions.

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Forum of Education. vol. 32, 1973. 3/Yr. Aus. $2. Sydney Teachers' College. P.O. Box 63, Camperdown, New South Wales 2050, Australia. Ed. Dunstan Kemp. bk. rev.

Future Talk. 1972. q. free. California State Colleges and Universities, Office of the Chancellor. 5670 Wilshire Blvd., Los Angeles, CA 90036. Ed. Toni A. Howard. circ. 17,500.

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Journal of College Science Teaching. 1971. 5/Yr. $12. National Science Teachers Association, 1742 Connecticut Ave. N.W., Washington, DC 20009. Ed. Leo Schubert. adv. bk. rev. film rev. abstr. index. circ. 3,000. Indexed: Biol. Abstr. Chem. Abstr.

Journal of College Student Personnel. 1959. bi-m. $15. American College Personnel Assn., 1605 New Hampshire Ave., N.W., Washington, DC 20009. Ed. Albert B. Hood. adv. abstr. index. circ. 10,000. Coll. Stud. Pers. Abstr. Educ. Admin. Abstr. Edu. Ind. Psychol. Abstr. SSCI.

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II. LIST OF SOME RESEARCH CENTRES ON HIGHER EDUCATION

ARGENTINA

Research Centre for Educational Sciences
Freire 1973
BUENOS AIRES
Argentina

AUSTRALIA

Center for the Study of Higher Education
University of Melbourne
PARKVILLE, VICTORIA
Australia 3052.

CANADA

Center for Learning and Development
McGill University
P.O. Box 6070
MONTREAL, QUEBEC
Canada H3C 3GI

DENMARK

Institute for Studies in Higher Education
Kobenhavns
Universitet
24 FIOLSTRAEDE
DK-1171 COPENHAGEN, K.
Denmark.

ENGLAND

Center for Economics of Education
London School of Economics
Houghton Street
LONDON WC2A 2AE
England

5801 South Ellis Avenue. Chicago. IL 60637. Ed. Irene Macauley. charts.

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Vldya Karya. bi-m. Universitas Lambung. Mangkuriat, Fakultas Keguruan, J1. Veteran No. 268. Banjarmasin, Inodnesia.

Washiogtoo State Uoiversity Research Studies. 1929. q. $4. (Washington State Univ.) Washington State Univrsity Press, Pullman, WA 99163. Ed. Henry P. Grosshans. charts. illus. cum. index: v. 1-25. circ. 700. Indexed: Hist. Abstr. M.L.A.

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POLAND

Research Institute of Science Policy and Higher Education
Ul. Nowy Swiat 69-00-046
WARSAW
Poland

UNITED STATES OF AMERICA

Institute of Higher Education
Box 34
Teachers College
Columbia University
NEW YORK
U.S.A. 10027.

Society for Values in Higher Education
1818 "R" Street, N. W.
WASHINGTON, D. C.
U.S.A. 2009

Faculty Development Program Council for Advancement of Small Colleges
One Dupont Circle N. W.
WASHINGTON D. C.
U.S.A. 20036

Institute of Higher Education
University of Georgia
Candler Hall, 3rd FLOOR
ATHENS, Georg
U.S.A. 30602

Institute of Higher Education
University of Florida
GAINESVILLE
FLORIDA
U.S.A. 32611

Department of Higher Education
University of London
Malet Street
LONDON WCIE 1HS
England

Society for Research into Higher Education (SRHE)
25 Northampton Square
LONDON ECIU OHL
England

FRANCE

Research Institute in the Economics of Education, Facultedes Sciences—Mirande
Universite' de Dijon, Campus
Universitaire
21000 DIJON
France

GERMANY, WESTERN

Research and Development Centre for Teaching and Learning Methods
RATHENAUSTRASSE 69-71
4790 PADERBORN,
Federal Republic of Germany

INDIA

Center for Advanced Study in Education
University of Baroda
Lokmanya Tilak Road
BARODA 390002
India

JAPAN

Research Institute for Higher Education
Hiroshima University
Higashisenda—Machi
HIROSHIMA CITY
Japan 730

Staff and Instruetional Development Program
Ohlone College
FREMONT, CALIFORNIA
U.S.A. 94537

Learning Aetivities Resouree Centre
California State University
CHICAGO, CALIFORNIA
U.S.A. 95926

Centre for Research and Services in Higher Education
University of Albama
University
Alamama
U.S.A. 35486

Faculty Development Program
Associated colleges of the Midwest
60 West Walton Street
CHICAGO, ILLINOIS
U.S.A. 60610.

Office of Instructional Development
Colorado State University
FORT COLLINS, COLORADO
U.S.A. 80521

Faculty Career Development Center
California State University
LONG BEACH, CALIFORNIA
U.S.A. 90804

Institute for Advancement of Teaching and Learning
California State University
18111 Nordhoff Street
NORTH BRIDGE, CALIFORNIA
U.S.A. 91324

Center for Research and Development in Teaching
Stanford University
STANFORD, CALIFORNIA
U.S.A. 93405

Faculty Development Program
California State University
FRESNO, CALIFORNIA
U.S.A. 93740

7. Association of International Colleges & Universities
27 place de 1' Universite'
13625 Aix-en Provence
FRANCE

8. Association of South East Asian Institutes of Higher Learning
Ratasastra Building
CHULALONGKORN UNIVERSITY
Henri Dunant Road
BANGKOK 5
THAILAND

9. Centre for Educational Research & Innovation
C/o OECD, 2 rue Andre' Pascal
75016 PARIS,
FRANCE

10. Comparative Education Society in Europe
Institute of Education
University of London
Malet Street
LONDON WC1 E7HS

11. Confederation of the Universities of Central America
Apdo. 37 CIUDAD UNIVERSITARIA SAN JOSE'
COSTA RICA

12. Council For Cultural Cooperation
(Council of Europe)
Ave. de l'Europe
67006 STRASBOURG—CEDEX
FRANCE

13. European Association of Teachers
122 rue de Lausanne
GENEVA, SWITZERLAND

III. SOME INTERNATIONAL ASSOCIATIONS ON HIGHER EDUCATION

1. African and Malagasy Council on Higher Education
   B.P. 134,
   OUAGADOUGOU
   UPPER VOLTA
   (West Africa).

2. Association for the European University Community
   2 rue Merimee
   PARIS—16
   FRANCE.

3. Association of African Universities
   P.O.B. 5744
   ACCRA,
   GHANA.

4. Association of Arab Universities Scientific Communication Centre,
   Tharwar Street, ORMAN, P.O.
   GIZA,
   EGYPT.

5. Association of Caribbean Universities & Research Institutes
   27 COBAGO Ave
   New Kingston,
   KINGSTON—10, JAMAICA

6. Association of Commonwealth Universities
   36 Gordon Square
   LONDON WC_1 HOPE

7. Association of International Colleges & Universities
27 place de 1' Universite'
13625 Aix-en Provence
FRANCE

8. Association of South East Asian Institutes of Higher Learning
Ratasastra Building
CHULALONGKORN UNIVERSITY
Henri Dunant Road
BANGKOK 5
THAILAND

9. Centre for Educational Research & Innovation
C/o OECD, 2 rue Andre' Pascal
75016 PARIS,
FRANCE

10. Comparative Education Society in Europe
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University of London
Malet Street
LONDON WC1 E7HS

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Apdo. 37 CIUDAD UNIVERSITARIA SAN JOSE'
COSTA RICA

12. Council For Cultural Cooperation
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Ave. de l'Europe
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122 rue de Lausanne
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   (West Africa).

2. Association for the European University Community
   2 rue Merimee
   PARIS—16
   FRANCE.

3. Association of African Universities
   P.O.B. 5744
   ACCRA,
   GHANA.

4. Association of Arab Universities Scientific Communication Centre,
   Tharwar Street, ORMAN, P.O.
   GIZA,
   EGYPT.

5. Association of Caribbean Universities & Research Institutes
   27 COBAGO Ave
   New Kingston,
   KINGSTON—10, JAMAICA

6. Association of Commonwealth Universities
   36 Gordon Square
   LONDON WC_1 HOPE

21. UNESCO INSTITUTE FOR EDUCATION
58 Feldbrunnenstr
2 HAMBURG 13
WEST GERMANY.

22. Union of Universities of Latin America
Apdo. 70232
CIUDAD UNIVERSITARIA
MEXICO 20

23. World Association for Educational Research
1, B-9000 Ghent,
BELGIUM

24. World Confederation of Organisation of the Teaching Profession
5 Avenue du Moulin
1110 Morges (VAUD)
SWITZERLAND

25. World University Service
5 Chemin des Iris
1216 COINTRIN
GENEVA, SWITZERLAND

14. Institute of Education
(Foundation Europeenee de la Culture)
UNIVERSITE' DAUPHINE
1 Place du Marachal de Lattre de Tassiqny
75110, PARIS
FRANCE.

15. Inter-American Council for Education Science & Culture
General Secretariat of the Organisation of American States
Washington D.C. 20006
U.S.A.

16. International Association of University Professors and Lecturers
6 rue de la Republique
94160 Saint Mande
FRANCE

17. International Bureau of Education
Palais Wilson,
1211, Geneva 14
SWITZERLAND

18. International Institute For Educational Planning
7-9 rue Eugene Delacroix
75016 PARIS
FRANCE

19. International Institute of Educational Studies
P.O.B. 30
1000 BRUSSELS 23
BELGIUM

20. Unesco European Centre on Higher Education
39 Street Stirbey Voda
79062 BUCHAREST
ROMANIA

INDEX

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